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# MY LIFE AS A NATURALIST

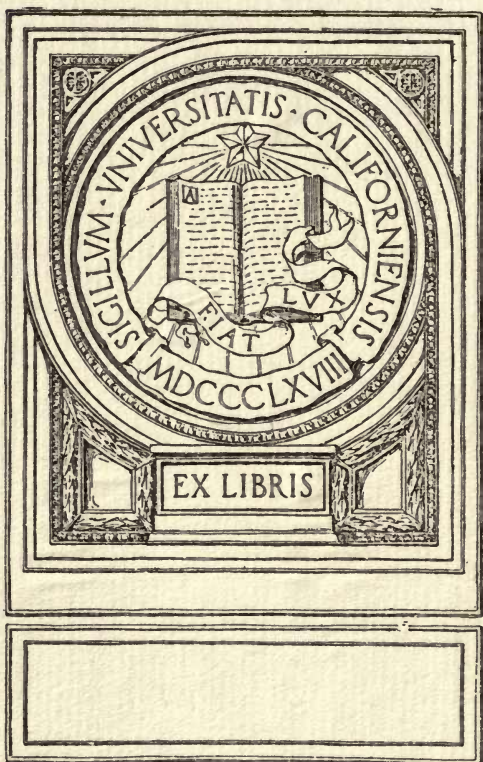
W. PERCIVAL WESTELL, FLS





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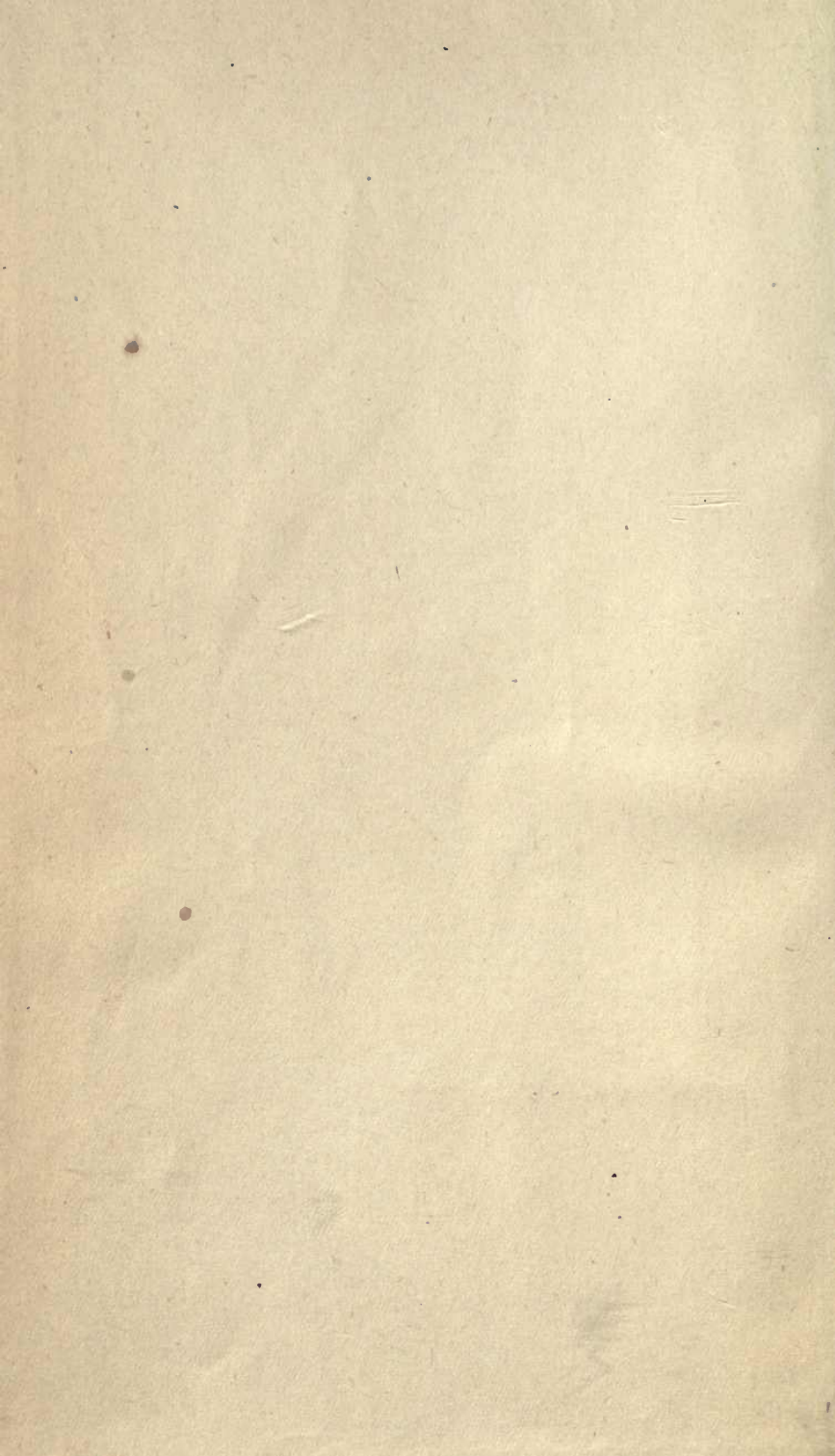




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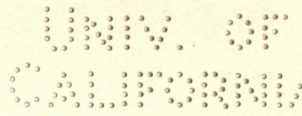




**MY LIFE AS A NATURALIST**







TO MR. J. H. BROWN  
ANDERSON, ILL.



Yours very truly,  
W. Percival Westell.  
—

# MY LIFE AS A NATURALIST

BY

W. PERCIVAL WESTELL, F.L.S.

*Exhibitioner of the Royal Society  
Bronze Medallist, Society of Acclimatization of France*

AUTHOR OF

'NATURE'S WONDERLAND,' 'THE BOY'S OWN NATURE BOOK'

'THE YOUNG OBSERVER'S HANDBOOK'

ETC. ETC.

WITH AN INTRODUCTION BY  
THE EARL OF LYTTON.

'PUCK'S SONG'

BY KIND PERMISSION OF MR RUDYÄRD KIPLING

PHOTO FRONTISPIECE, AND ONE HUNDRED ILLUSTRATIONS

FROM DRAWINGS BY

NED BRYANT



LONDON

CECIL PALMER & HAYWARD  
OAKLEY HOUSE, BLOOMSBURY ST., W.C.1



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TO  
THE DOWAGER COUNTESS OF LYTTON  
AS  
A TOKEN  
OF  
AFFECTION AND REGARD

*" A look—and lo, our natures meet !*

*A word—our minds make one reply !*

*A touch—our hearts have but one beat !*

*And, if we walk together—why*

*The same thought guides our feet."*

(From "Friend and Friend,"  
by Owen Meredith.)

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## TO NATURE

“It may indeed be phantasy when I  
Essay to draw from all created things  
Deep, heartfelt, inward joy that closely clings ;  
And trace the leaves and flowers that round me lie  
Lessons of love and earnest piety.  
So let it be ; and if the wide world rings  
In mock of this belief, to me it brings  
Nor fear, nor grief, nor vain perplexity.  
So will I build my altar in the fields,  
And the blue sky my fretted dome shall be,  
And the sweet fragrance that the wild flower yields  
Shall be the incense I will yield to Thee,  
Thee only, God ! and Thou shalt not despise  
Even me, the priest of this poor sacrifice.”

S. T. COLERIDGE



## INTRODUCTION BY THE EARL OF LYTTON

THOREAU once wrote of Friendship that all that could be said of it was as botany to flowers. He meant the contrast to be sharp. Botany and flowers—how wide the difference! A study of the structure of plants no more produces a love of Nature than the study of anatomy leads to a love of mankind. For one person who studies Nature after the manner of the Naturalist, there are probably thousands who love Nature after the manner of the poet. The one is an affair of the brain, the other of the heart. But if there be any who think that the Naturalist cannot at the same time be a nature lover, the author of this book is a witness who will convict them of error. Mr Westell has the rare combination of head and heart which makes him the sympathetic interpreter of Nature to the uninitiated. Those who have only read his books cannot, perhaps, realise to what extent this is true. But to hear him lecture, and, still more, to have him as a companion for a day in the country, at any season of the year, is a delightful experience for anyone who is capable of appreciating the romance and fascination of the countryside.

There is much talk in these days of the problem of rural depopulation, and of how to bring people back to the land. Those who have attempted to deal with the problem are always confronted with the difficulty that, to those who have once felt the attractions of a great city, the country is a dull place.

The town dweller is glad enough to seek a short rest during a holiday in the country, but fields and woods can never permanently compensate him for the loss of the excitement which he derives from the crowded thoroughfares, the lighted shops, the places of entertainment, and the busy companionship of fellow-men. I am disposed to despair of ever reclaiming the man who has once been captured by the attraction of a city life. But I am no less strongly convinced that it ought to be possible, if rightly attempted, to keep alive in those who have been born and brought up in the country, a love of Nature which would resist any temptation to emigrate into the town. The first step

in this direction is surely to create the interest which comes from *knowledge*. Nature is fascinating at every season to those who have the power to understand the life which surrounds them. But in the intercourse with Nature, as in human intercourse, a sympathetic interpreter is required.

Is it not true of the vast majority of those who live in the country that they have eyes and see not, ears also and hear not? As a rule, it is only the kind of idler for whom Stevenson wrote an apology, or perhaps the sportsman who hunts for pleasure, that can distinguish the songs of birds, or note the little dramas of plant and insect life that are enacted daily before their eyes.

To my mind the study of bird life is an inexhaustible fund of wonder and delight. The mystery of their migration, the interest of their nesting habits, and, above all, the beauty of their individual songs, renew their fascination with every year. Much of the pleasure which I derive from watching them, and listening to them, I owe to Mr Westell, who first taught me to distinguish their notes, and pointed out to me many of their habits which I had not noticed for myself.

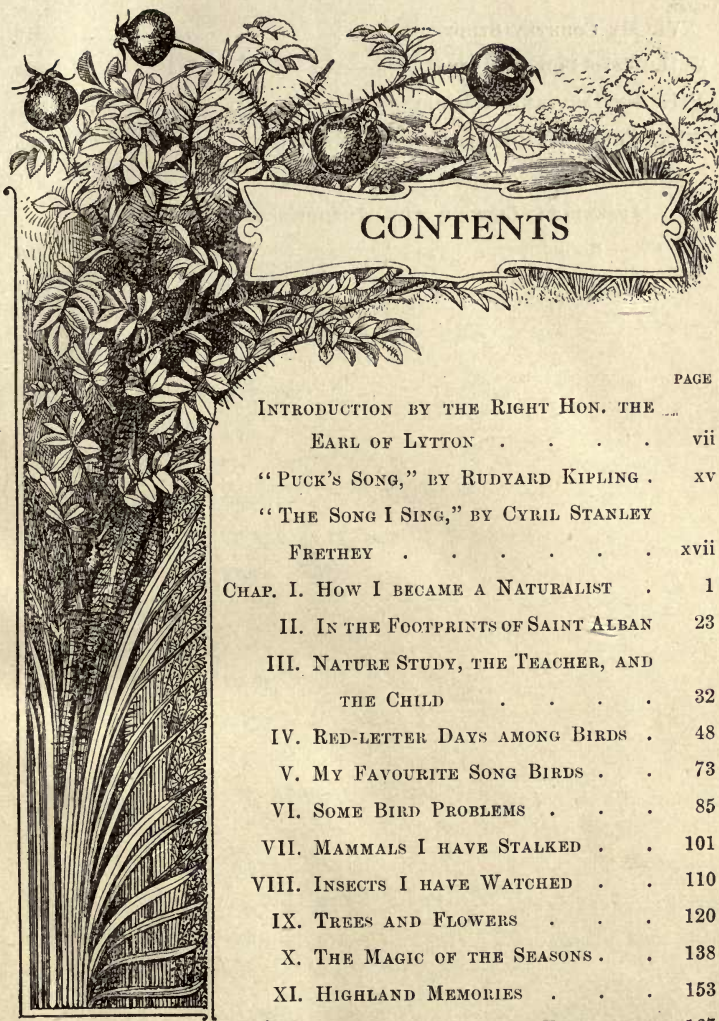
If a Naturalist of this order could be found in every village, I think the towns would be robbed of many of their recruits, and the countryside would be clothed with new and hitherto undreamed of attractions.

It is for this reason that I am glad to welcome the publication of this book, and to express my own obligations to its author.

LYTTON

KNEBWORTH, *January* 1918





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## PUCK'S SONG BY RUDYARD KIPLING

PUCK'S SONG, included by Mr Rudyard Kipling in his famous "Puck of Pook's Hill," is so much after my own heart, as certain sections of my "Life" herein recorded will show, that, with the famous writer's kind permission, I am enabled to preface my own chapters with it here.

It seems to me that Mr Kipling has set out in a few brief lines, as only he could do, an ingenious narration of the whole history of England. Its intelligent reading quickens the senses, and stirs one's finer feelings to their utmost depths.

Here is Puck's wonderful oration :—

" See you the dimpled track that runs,  
All hollow through the wheat ?  
O that was where they hauled the guns  
That smote King Philip's fleet.

See you our little mill that clacks  
So busy by the brook ?  
She has ground her corn and paid her tax  
Ever since Domesday Book.

See you our stilly woods of oak,  
And the dread ditch beside ?  
O that was where the Saxons broke,  
On the day that Harold died.

See you the windy levels spread  
About the gates of Rye ?  
O that was where the Northmen fled,  
When Alfred's ships came by.

And see you, after rain, the trace  
Of mound and ditch and wall ?  
O that was a Legion's camping-place,  
When Cæsar sailed from Gaul.

And see you marks that show and fade,  
Like shadows on the Downs ?  
O they are the lines the Flint Men made,  
To guard their wondrous towns.



Trackway and Camp and City lost,  
Salt Marsh where now is corn ;  
Old Wars, Old Peace, Old Arts that cease.  
And so was England born !

She is not any common Earth,  
Water or wood or air ;  
But Merlin's Isle of Gramarye,  
Where you and I will fare."

## THE SONG I SING

*N.B.*—The author of the following lines, a new west country poet of striking originality, has so lovingly sung my own heart-song that I feel impelled to take advantage of his graceful permission to include his verses in the forefront of this volume.

“I SING the song of the torrent stream,  
And the rippling, pebbled brook,  
Of its flower-decked bank, where I sit and dream,  
Near a festooned, shady nook.  
I sing the song of the Summer sun,  
With its filmy, cloud-flecked sky,  
The August cornfields’ sun-tann’d gold,  
And the wild birds’ minstrelsy.

I sing the song of the flaming flower,  
Of the pastures’ rolling green,  
Of the scented grasses’ dew-spray shower,  
And the glistening raindrops’ sheen.  
I sing the song of the tinted fall,  
Of the wild briar’s scented spray,  
Of the brookside willow catkin’s chrome,  
And the milk-white bloom of May.

I sing the song of the purple bloom,  
Of the wild, free, open heath,  
Where the bee sucks heather, nectar food,  
And the partridge nests beneath.  
I sing the song of the wander life,  
The song of the wild, lone trail,  
The song of the scented, evening breath,  
And the dew-mists’ bridal veil.

I sing the song of the pirate bird,  
Of the swift and hovering flight :  
Of the vagrant nightjar’s vibrant note,  
And the prowlers of the night.  
I sing, with a tuneful cadence lilt,  
The song of the passing breeze,  
The bass of the Viking Ocean’s roar,  
And the ‘swish’ of the leafless trees.

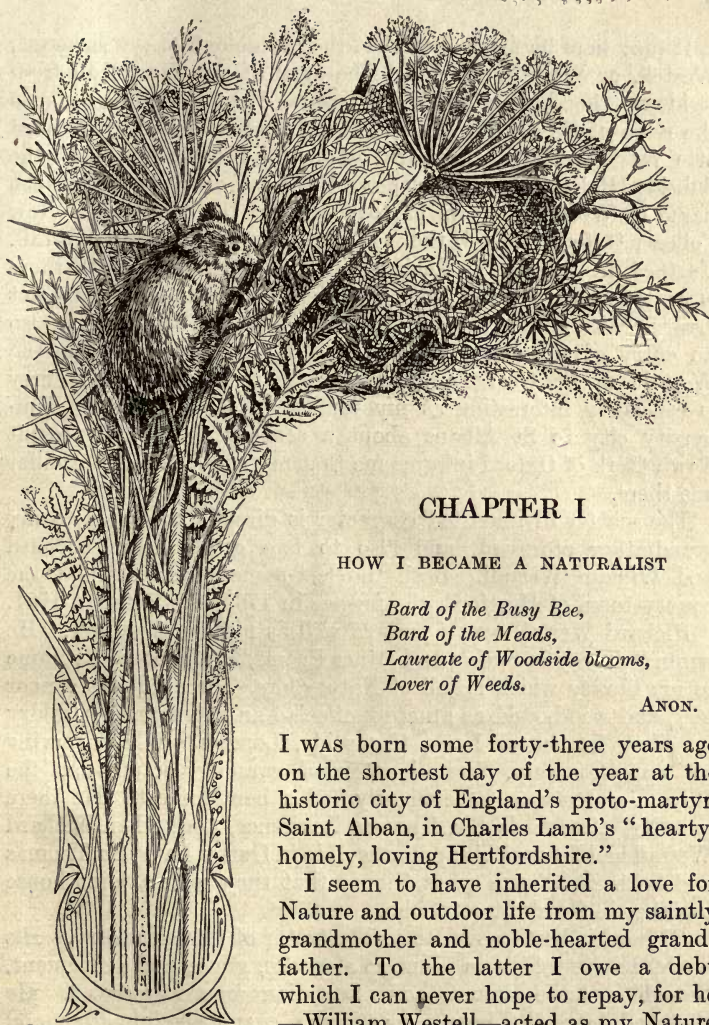
I sing the doom of the itching palm,  
And grabbing lust of greed,  
I hail the dawn, with a lyric ode,  
Of an all-embracing creed.  
All hail ! with the bluebell's silvery peal,  
With the blackbird's boxwood fife !  
I drink from the nectar'd floral cups,  
The toast of ' The Winc of Life ' !

I sing of the seasons' grand parade,  
With a lilting, full-soul'd lay ;  
The Springtide's green, with studs of gold,  
And the Summer's rich brocade.  
Of Autumn's glory gold I sing—  
The leaf-tints' sunset fall—  
Of grim old Winter's crystal snows,  
And a hopeful dawn for all.

I sing the song of the old camp fire,  
With its red-flamed, evening glow,  
Of the fragrant weed, of the tuneful lyre,  
Of the sign of the bended bow.  
I sing the song of the hopeful heart,  
In a tuneful, lilting strain ;  
The storm-clouds gather, and the night is dark,  
But the sun will shine again."

CYRIL STANLEY FRETHEY





DORMOUSE AND NEST.

## CHAPTER I

### HOW I BECAME A NATURALIST

*Bard of the Busy Bee,  
Bard of the Meads,  
Laureate of Woodside blooms,  
Lover of Weeds.*

ANON.

I WAS born some forty-three years ago on the shortest day of the year at the historic city of England's proto-martyr, Saint Alban, in Charles Lamb's "hearty, homely, loving Hertfordshire."

I seem to have inherited a love for Nature and outdoor life from my saintly grandmother and noble-hearted grandfather. To the latter I owe a debt which I can never hope to repay, for he—William Westell—acted as my Nature guide and interpreter during my earlier years. It is probable that, under such benign influence, seeds were sown which have germinated, through protoplasmic force, until such time as the young sapling gathered strength and courage on the way, and was able to take its place among its companions of the forest.

It may here be mentioned that the etymology of my surname, Westell, or Westall, appears to be local of the West Hall from residence thereby or therein, the name Westall dating back to the reign of Edward I. (1301), when I find reference to Richard atte Westhale, *alias* Westall de Ancotes, Lincolnshire. In the Subsidy Rolls for Hertfordshire, Hundred of Broadwater, the name of Westall appears in 1546, and in the Register of New College, Oxford, 1564-5, there is mention of one, Owen Westall. Further, in a Marriage Register at Westminster, 1569-70, there is an entry of the marriage of Jerome Westall with Margaret Lewes. In another London Register, dated 1793, there is also an entry of the marriage of James Flintoft with one Martha Westall, at St George's, Hanover Square. The Oxford entry is especially interesting as my family migrated from the University city to St Albans about a century ago. The present Town Clerk of Oxford informs me that my name is still a familiar one there.

The matter of inherited character is directly traceable to my grandfather aforesaid, and also to two great-uncles, Richard and William Westall. Both the last-named were born at the county town of Hertford, the former in 1765, the latter in 1781.

Richard Westall was a poet as well as historical painter. He wrote "A Day in Spring and Other Poems," an honoured volume in my library which is full of Nature lore. Richard was a poor boy, and was bound as an apprentice to an engraver of heraldry on silver in Gutter Lane, Cheapside, London. Whilst serving his apprenticeship, Westall attended evening lectures at the Royal Academy, as he evidently had a bent for art. He there met Mr, afterwards Sir, Thomas Lawrence, and, when Richard Westall had finished his apprenticeship in Gutter Lane, Sir Thomas and he became such great friends that they took a joint house together in Greek Street, Soho.

Richard is best known as an illustrator of British poetry. His work, we are told, was prone to elegance, grace, and refinement, though a large amount of affectation was introduced. He sketched love and love scenes under every possible type and symbol, many of his subjects being devoted to ancient mythology.

The first production which called public attention to his art was a picture exhibited in 1785 representing a scene from Chaucer's "January and May," but his first great work consisted of illustrations from the writings of Milton and Shakespeare which he was commissioned to execute by Alderman Boydell, founder of



the Shakespearean Gallery. Westall is said to have achieved in art what Thomas Haynes Bayley did in poetry. He soon became one of the most popular book illustrators of the day, and was much sought after by publishers. He was made a Royal Acadamecian in 1794, the same year in which Lawrence and Stothard were elected. He taught Queen Victoria painting, and



FIG. 1.—BIRCH IN WINTER.

we are informed that his distinguished royal pupil did honour to his powers as an instructor. Incidentally, I may here put on record that Queen Mary has written to me to say that there are one or two pictures by my great-uncle at Windsor Castle. His most famous canvas is "The Harvest Storm." Richard Westall made a handsome fortune, but eventually his riches were dissipated as he was imposed upon by dishonest picture dealers, who faked copies of the old masters and sold them to him as originals. In view of this the Royal Academy granted him a pension, and he died on December 4th, 1836, at the age of seventy.

From the dedication page of "A Day in Spring and Other



Poems," published in 1808 by John Murray and A. Constable & Co., I cull the following interesting announcement :—

"The Author submits the following Poems to the Public with the same deference to their opinion, the same hopes, and the same apprehensions which invariably accompany the exhibition of his productions in another and a sister art."

As showing Richard Westall's passionate love for Nature I quote a few lines from his "Day in Spring," which occupies the first thirty-nine pages of his volume under review. He sings in Stanza IV :—

Now I seek the quiet grove,  
Where the Ring Dove woos his love;  
Where, beneath each spreading tree  
Clust'ring grows the Strawberry  
And the tangling underwood,  
Frequent twines the devious road,  
Till a sloping lawn I cross,  
Girt with Oak, and soft with Moss,  
Whose deep bosom thick is set  
With the purple Violet,  
And the Orchis rears his head  
Spiral from its velvet bed.

A further quotation may be given from "On the Approach of Winter" :—

How chang'd, how silent is the grove,  
Late the gay haunt of youth and love !  
Its tangling branches now are shorn  
Of leafy honours, and upborne  
By their close tops, the snow hath made  
Beneath a strange and solemn shade.  
Here oft with careless ease I lay  
On the green lap of genial May ;  
Dear was the stream, whose bottom shone  
With fragments rude of sculptured stone,  
Which from yon Abbey's ivy'd wall,  
Shook by the wind, would often fall ;  
Dear was the sound its waters made,  
As down the pebbled slope they play'd.  
I hear not now its mimic roar,  
Seiz'd by the frost it sounds no more ;  
But dreary, mute, and sad it stands,  
Torpido, beneath chill Winter's hands.

Four further lines from "A Day in Spring" may be given, as

to which Westall himself writes : " The gentleman alluded to in this passage is William Ayton, Esq., late of Macclesfield. It was written with the strongest sentiments of gratitude and affection for the paternal regard which he had ever shown me, from my early days, when his advice, his assistance, and protection were of the highest importance to me. Unfortunately for me, and for his family, he is now dead. The feelings, in which the passage originated, and which cannot cease but with my existence, have induced me to suffer it to remain as it was during his life. What was addressed to him in the moments of joy stands now, conjunctly with this note, a weak tribute to his memory ; but soothing to myself, and not unpleasing to those of my dear hereditary friends who survive him."

Here are the lines :

Thou, my dear, my early friend,  
Thou shalt read, and we'll attend,  
Till each soul, impassion'd wears  
Joy for joy, and grief for tears.

A short note concerning Richard's brother, William, may well conclude these ancestral details. The latter was a landscape painter, and, as such, would of course be brought into intimate touch with the beauties of outdoor life. I have before me a fine quarto volume of engravings and notes entitled " Great Britain Illustrated," containing about fifty reproductions of William Westall's pictures, this tome having recently been purchased by me at a local second-hand bookseller's for a few pence. The subjects mainly consist of notable houses, churches, and waterways of the period, and it is interesting to note that there is one of Oxford as viewed from the meadows. Many of the places illustrated I have myself visited, unconscious of the fact that my great-uncle preceded me about a century ago, and I have particularly noted his presentations of Berry Pomeroy Castle, near Totnes, Devon ; Canterbury Cathedral ; Christchurch Priory, Hampshire ; St John's College, Cambridge ; the Eden Bridge at Carlisle ; the Entrance to Newmarket ; Melrose Abbey ; Holyrood Palace, Edinburgh ; Scarborough Castle ; the Stone Bridge at Newcastle ; Hastings ; Liverpool Docks ; Abbotsford, the residence of Sir Walter Scott ; Nottingham Castle ; Arthur's Seat, Edinburgh ; Whitby ; Manchester ; Brighton ; Durham Cathedral ; Winchester ; Eaton Hall, Cheshire ; and Lincoln Cathedral.



But William Westall not only travelled extensively in England, Scotland, and Ireland for subjects to put upon his canvases, as in 1801-3 he accompanied the distinguished English navigator, Captain Matthew Flinders, as draughtsman on his voyage of discovery to Australia. He was elected an Associate of the Royal Academy in 1813, and died on January 22nd, 1850. It is probable that, with other members of the expedition, William Westall was, on arrival at the Isle of France, made a prisoner of war. Flinders was detained there as a prisoner for six years, and presumably Westall would be likewise disposed.

Several of my more recent relatives—notably the late John Westall, my grandfather's brother—also achieved success as landscape painters, and one of my sisters, Beatrice Daisy, has inherited artistic tendencies in a marked degree, and is, like myself, a passionate lover of the country.

My great-grandfather, whom I remember quite well, was a Herald writer, and he also drove the Royal Mail between Hatfield and St Albans for many years. Twice in my life there have been four generations of my family living at one time.

Franklin, we are told, was a misfit in his father's candle shop, as Darwin was as an undergraduate at Glasgow University. Both eventually stumbled upon a vocation capable of inciting in them a passionate enthusiasm, though Darwin's father once predicted mournfully: "You care for nothing but shooting, dogs, and rat-catching, and you will be a disgrace to yourself and all your family." First it was intended that Charles Darwin should be a physician, later a clergyman, but, fortunately, when at Cambridge he came under the direct influence of an eminent and enlightened scholar, Professor Henslow, when he entered the latter's Natural History Class. Thus was the apprenticeship of Darwin in the School of Natural Science entered into.

Now I do not know that it was ever my painful duty to be chastised by a parent after the manner of Charles Darwin, as, living in the country, amidst the pleasant environs of a city famous throughout the whole world for the part it has played in English history, undoubtedly made a great impression upon my young life, added to which my family wisely recognised the manifold delights of outdoor life.

As I have already indicated, there was also at hand the assistance and encouragement of a self-educated grandparent—William Westall—and this, together with a suitable environment, meant



everything in the opening chapter of my career. Even thus early I could fully appreciate, as I do now, the answer to the question: What is the value of a Dragon-Fly's wings? I quote an unknown writer, "Mome Rath," from the *Saturday Westminster* thus: "It depends who is estimating. To some they are worth nothing. Others count them false treasure, as a syren's voice, or the glimmer of Will-o'-the-Wisp, or the iridescence upon foul water. To me they are more precious than the Tate Gallery, of equal value with a dew-hung Spider's web at dawn, and not as valuable as laughter."



FIG. 2.—DRAGON-FLY ON WING.

It seems as regards myself that my Nature christening took place within sight of the mossy cradle and bright blue eggs of that Mark Tapley among birds, the homely Hedge Accentor. I must have been at least six years of age when I was held aloft to peep inside the snug family nursery of the bird just mentioned, and, since that auspicious hedgerow incident, I have gone steadily forward with a stout heart and an incessant craving for intimacy with living things.

As a boy I was taken into the woods and fields, primrosing, cowsliping, and daffy-down-dillying, and I hope and believe that,

unlike Wordsworth's tyro, to whom

A Primrose by the river's brim  
A yellow Primrose was to him,  
And it was nothing more,

to me that sulphur-tinted flower, Shakespeare's

First-born child of Ver,  
Merrie Springtime's harbinger,

was something more than a *pretty flower*.

It at once bequeathed to my childish fancy an indefinable charm. Its little life was to me a fund of wonder and delight. Its coming and going were both magical and mysterious. I watched the chaste blossoms peeping from their cosy woodland bed in the glad days of smiling April year after year. I witnessed the beneficent sunlight caressing the open heart of the flower and infusing it with energy. Old associations became securely anchored in the garden of my mind, and I was entranced thus early with the modest flower's awakening at the budding coronal of Spring. The birds sang to me *as a child* as they do now, but in those earlier days it was a muddled medley, an outburst of feathered song, decidedly orchestral, difficult to individualise. Now, the soloists are more distinctive, their notes have a personal touch, and their sweet minstrelsy is the more acceptable, for, as Emily Ridgway has written:—

“Experience teaches that discipline and hard training, which someone has called ‘the scourge-sticks of heaven,’ are essentials for making the sweetest music.”

And in studying Nature, with a view to acquiring any measure of success, *discipline* and *hard training* are very necessary essentials.

My Nature experiences up to, and including, my teens, were made all the more memorable because my father and grandfather were faithful disciples of Izaak Walton, and also great cricketers. William Westell, playing against All-England, took all ten wickets in the second innings. He was considered one of the straightest bowlers of his day, and was never known to bowl a wide. In 1884 my father scored 188 against Essex, 138 against Abbots Langley, and 129 against Rickmansworth in three successive innings on successive days, at a time when such a feat was more highly recognised than it is to-day. At the time of writing he has 49 centuries to his credit. I have myself been a keen cricketer all my life, and one of my happiest memories is that, when about fourteen, I made a famous “stand” with



Lockwood, the Surrey bowler, on Bernard's Heath, St Albans, and was rewarded for my juvenile efforts with a pocketful of gooseberries. Twice in my own career I have scored a century. Up to the age of twenty-one I was also an ardent footballer, and I am a devotee of cycling for both convenience and pleasure. These cricket reminiscences are included here to show the association of my family with our national Summer pastime, and how it undoubtedly influenced my own regard for outdoor life. Cricketing and fishing pursuits took my parents and myself continually into the open air, under the blue sky, and many an empty creel has been compensated for by the streamside, watching the Water Vole performing its ablutions, the dandy Dragon-Fly toying upon the wing, or, maybe, I caressed the blue Forget-me-not which so richly ornamented the fringe of the water.



FIG. 3.—PRIMROSES.

I used, I remember, to steal cautiously out of the old home at daybreak to spend the long Summer hours by some enchanted stream, to listen to the seductive call of the wandering Cuckoo, the bleating of placid Sheep, and the busy hum of winged creatures. I watched the rise of the Mayfly, the flight of the swift-winged Swallow as it skimmed across the lush meadows, the hovering of a Kestrel Hawk, the pleasing gait of Nature's little feathered gentleman, the trim Wagtail, the shoals of silvery Minnows shimmering in the sunlit water, or the banded Perch in the deep recesses, where the sunshine played hide-and-seek, or cast light and shade, across the bosom of the stream.



These sights and sounds interested me. Contact with them cemented the inherited love I possessed for outdoor recreation. Mr R. J. Campbell has, in his recent autobiography, conveyed an impression of my own youthful feelings when he writes :—

“I had a perfect passion for Nature in all its moods, and a sort of mystic feeling about it. I never felt less alone than when in communion with the holy presence of which I was conscious everywhere in those habitual retreats. I knew what Wordsworth’s Nature-worship meant long before I knew Wordsworth : it was exactly my own. I used to feel that the whole landscape was mysteriously alive, and every minutest object in it, every tiny flower and brook, became to my naïve perceptions instinct with Heaven. Nor have I lost this entirely. It gave me a view of life which I can only call sacramental, and which has remained with me all through my maturer years.”

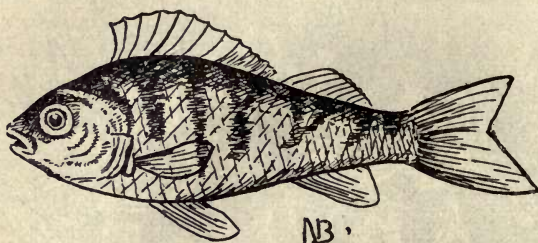


FIG. 4.—PERCH.

Those boyish angling experiences, and whole days in quiet woodland and meadow, afforded me pleasant hours of quiet meditation. It was a relief to get away from the work-a-day world, to be alone with Nature. They were not idle hours, for they gave constant opportunity for meditation, which, as has been well said, is “the science of the Saints.”

Quiet meditation, and the acquirement of self-knowledge, self-respect, self-restraint, go hand-in-hand with the study of Nature, and is preferable to the dictum of the taxi-cab driver who delivered the following eloquent little treatise on driving in the dark : “If we hear a smash we know we have hit something, and if we don’t we know it is all right.” The study of Nature must not be left to such a chance as this. So, what with rambling, angling, gardening, and cricketing, life was very full to me in those earlier days, and, truth to tell, my scholastic studies at St Albans Grammar School made little impression upon a youthful mind

engrossed with the wonders of the outdoor world. In process of time this wonder grew to very joy, and, in after life, an immense blessing. In 1911 it saved me from a permanent mental breakdown. As G. K. Chesterton has written in "The Priest of Spring": "When I look across the sun-struck fields I know in my inmost bones that my joy is not solely in the Spring; for Spring alone, being always returning, would be always sad. There is somebody, or something, walking there, to be crowned with flowers; and my pleasure is in some promise yet possible, and in the resurrection of the dead."

The country meant everything to me right from the beginning, it was, as it remains, my Alpha and Omega, though (and perhaps fortunately) all do not experience alike. Some of my neighbours and acquaintances find the country a dull place indeed. Nature's workshop is of little, if any, interest to them.

At first, and for many years afterwards, birds made a great appeal to me. I was fascinated with their winning ways and passionate outbursts of song, by their wonderful homesteads and callow fledglings. I yearned to be able to know them one by one, and the more I came to love them so did my knowledge extend. I had no place in my life for a colourless existence. Learning, I soon realised, was the fruit of effort; prosperity, I discovered, only takes root in continuous and painstaking labour. As Kaufman, in his witty, epigrammatic way, has pointed out, efficiency isn't a birthright, but an education. This world is our legacy. Our portion is only bounded by our own ability and zeal. Our title is clear to anything which we can honestly reach. Resolution is a mint. With a sound constitution, and an alert mind, we may all become capitalists, and thus invest—ourselves!

The years rolled by. Season succeeded season. As Richard Jefferies would say, I loved to watch the effect of the rising sap up, up the living staircase of the Spring, towards the great gallery of Summer, and the more I studied Nature in all her aspects, under all conditions, even in the restricted domain of my own parish, I was awed, amazed, electrified, bewildered, with the immense scheme of existence.

I started business at the age of fourteen in the greatest city of the world, within earshot of Bow Bells, where my great-uncle, Richard Westall, also spent his apprenticeship days as already narrated. I used to spend my luncheon hour in the high-railed garden of Finsbury Circus feeding the Sparrows and Pigeons,



and my evening hours in the country. But a city life, even with a good deal of leisure, was an uncongenial occupation for one steeped in a love of the unkempt countryside, though the experience gained of routine and business acumen has proved of immense assistance in after years, more especially in regard to my literary activities, of which it is hardly possible for me to write



FIG. 5.—THE STREAM IN SPRING.

on the present occasion. Suffice it to say that at the age of fourteen my first published article appeared in the old *Hertfordshire Standard*, and not long since I celebrated my literary jubilee by the publication of my fiftieth book!

As a boy I had little access to books of reference. White's "Natural History of Selborne" was my constant companion, and, together with Knight's "Pictorial Museum of Animated Nature" (still, happily, in my possession), constituted the only volumes I was able to consult.

An original edition of Culpepper's quaint "Herbal," I recollect,



was a volume of which my grandfather was immensely proud, but, for want of pocket money, I must here confess that one day the old favourite was missing from the book-case, having found a resting place with a second-hand bookseller in Alban's City at the modest purchase price of half a crown. But, as I have pointed out earlier on, my grandfather was for several of my youthful years my chaperone, and together we explored furze field and green lane, wood and dell, streamside and copse, in homely Hertfordshire, and discovered, for the seeking, treasures untold. We listened hand-in-hand, *and heart-in-heart*, to the lyrics of a soul-inspiring Thrush, and could sing with Muriel Stuart, as does she in "Christ in Carnival":—

"But with each step I took the morning grew  
Gayer and younger, a full-throated Thrush  
Woke, and from hidden bush  
Dimpled a note or two,  
Set the wood's side a-shake, as if it knew  
Answer to impudent jest; already Bees  
Sought the dell's bosom all a-heave into blue,  
And girdled with the goldenest Primroses.  
From every fold  
The young Lamb's cough came softly down the lane;  
The Cuckoo told  
His first few notes—as miser tells his gold,  
And counted them again."

And, in later years, listening to a Thrush perched on a stately Elm, among the tufts of early crimson flowers, I was myself constrained to write thus:—

Hark! to the singing Thrush  
On the bare bough,  
Voicing its lilting strain  
In England now.  
Sweet songster of the grove,  
Gay thou dost sing,  
Like to a chorister,  
Joy-bird of Spring.

What means this song of thine?  
Tell me, dear Thrush;  
Sing me a vesper sweet  
T'wards evening's hush.

"I love you, I love you,"  
Thus thou dost sing,  
"Come again, come again,  
Beautiful Spring."

Hark ! to the singing Thrush  
On the bare bough,  
Voicing its lilting strain  
In England now.  
Song-bird of hill and dale,  
I make my vow,  
I love you best of all  
In England now.

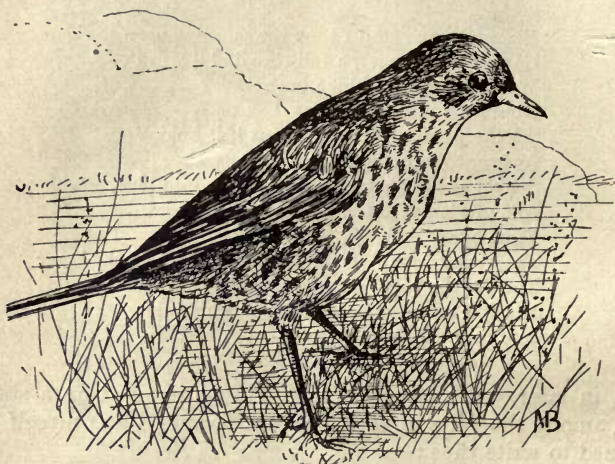


FIG. 6.—SONG THRUSH.

I have long since come to recognise a close association between Poetry and Nature. We need a greater measure of poetry in our national life. The song of the Thrush is full of poetry. Long before we ourselves have sufficient courage to realise that Spring is well under weigh, this large-hearted songster puts his thoughts into clear warblings of hope. Birds never lose faith in the Spring that is to be, and, as James Douglas says : "The Thrush is the poet who can transform his diet of worms into golden melody." His is the super-song among those uttered by our resident birds early in the year, for it is full of optimism at a time when we humans are doubtful of the glad days to come.

A love of Nature breeds poetry within one's soul, for the whole arena of outdoor life is one great poem of comedy and tragedy, humour and pathos, sunshine and storm. The difficulty is that, although we all feel this magic touch of poetry in our contact with Nature, we cannot adequately express it. It is something that can be inwardly digested, but not outwardly demonstrated. Once I listened to an ascending Lark, and the thoughts that occurred to me then I wrote down thus :—

Hark ! to the joyous Lark !  
On buoyant wing,  
Voicing his raptured lays—  
Pæans of Spring.

Pearl of the feathered race ;  
Prince of the air ;  
Full-throated Alanda ;  
Songster so fair.

Cleaving the ether blue,  
I hear thee sing  
Love-songs of welcome  
For Earth's blossoming.

Bird of the meadowland ;  
Speck of the sky ;  
Earth's gay ambassador,  
Soaring on high.

Snow, wind, and rain may come,  
Naught dost thou care ;  
Still soar and sing aloud,  
Prince of the air.

Spirit of blithesomeness,  
Happy and gay !  
Love-flights of gladsomeness,  
Day after day.

Why dost thou scorn the ground ?  
Why mount the cloud ?  
Sending back lullabies,  
Rich, long, and loud.



Joy-bird of early Spring ;  
Compass in feathers ;  
Head to the breeze thou soarest  
High in all weathers.

Bird-sprite of lilting lay ;  
Laureate of glee ;  
Lone minstrel of the air,  
Happy and free.

Sing thou again to me,  
Through rain or shine,  
Shimmering bridal-songs ;  
Minstrel divine !

Brown bird of Happy-land,  
Sing, ever sing—  
Call Earth from her slumber,  
Thou Herald of Spring.

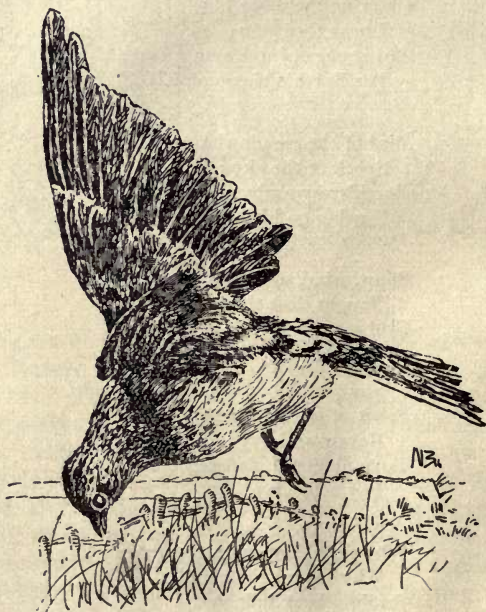


FIG. 7.—SKYLARK.

Soon after the advent of these verses in a local paper there appeared the following rejoinder, signed "An Admirer":—

"To a 'Sweet Spring Poet,'  
Hark to his lilting lay!  
Hark! hear him go it!  
Vieing with the joyous Lark.  
Never mind about the metre,  
Never mind about the rhyme;  
The muse is his, and if he beat her,  
It's her fate each sweet Springtime.  
Prince of the golden tongue,  
Prince of the hair;  
Full-throated Sappho's son,  
Songster so fair.  
Dodging the hackneyed themes,  
Boldly dost sing  
Love-songs of welcome  
For Earth's blossoming.  
Bard of the busy Bee,  
Bard of the meads,  
Laureate of woodside blooms,  
Lover of Weeds.  
Thou dost not scorn the ground,  
Like gleeful Lark;  
Thy heart is with the flowers,  
Down in the dark.  
Snow, wind, and rain may come  
Naught dost thou care;  
Shivering birdy songs  
Sing'st from thy lair.  
Sing thou again to me  
One little song;  
Sing thy sweet lullabies  
Eleven stanzas long.  
Then when thy song is done,  
If not before,  
I shall be slumbering,  
Dreading no more."

Homely Hertfordshire has inspired many poets, and it may here be mentioned that among a few of the better known singers of my native county there are included Francis Bacon, Richard

Burton, George Chapman, William Cowper, Gerald Massey, Bulwer Lytton, Owen Meredith (Robert, first Earl of Lytton), Henry Peacham, and many others too numerous to mention.

Dr Young resided for many years quite close to my home at Letchworth, and there wrote his famous "Night Thoughts"; Charles and Mary Lamb knew the county intimately; and Izaak Walton has immortalised the country around Hoddesdon in his memorable classic concerning his brothers of the angle.

Earlier on, I mentioned that for many years birds appealed strongly to me, and, as a matter of fact, the study of these winsome creatures in the field mostly occupied the first twenty-six years of my life, but about the year 1900 I found that a knowledge of mammals, fishes, insects, reptiles, pond dwellers, the seashore, plants, geology, and a little elementary astronomy and microscopy, were necessary to afford me a connected idea of the relationship which, I was gradually being convinced, existed in the animal, plant, and mineral worlds. I became automatically, as it were, interested in, nay, enraptured with, *Nature Study*, a willing convert to the fascinating pursuit of Ecology, which Haeckel has defined as the science treating of the reciprocal relations of organisms and the external world. Now, after thirty-seven years' continuous study, I find that it is difficult to consider any creature *individually*, for it has a collective and co-operative relationship with other sentient beings. Everything that lives I have long since determined has its use in the economy of Nature, each unit, as it were, dovetails into something equally important and arresting.

I have always tried to hand on any acquired knowledge to others who were interested, and, whilst endeavouring to be scientific, to so impart information in my classes, lectures, and books as to be fully understood by the tiniest child, or the merest tyro. Whilst recognising the importance of technical terms and dry-as-dust lore, I have tried to steer clear of, or amplify and make lucid, such statements for the readier acceptance of the multitude, who would be unwilling, for example, to accept such a dictum as I recently came across in one of my scientific journals as follows:—  
"The stem is protostelic, with parenchyma among the tracheides; the peripheral xylem-strands and leaf-traces are mesarch; the meta-xylem and secondary tracheides have multi-seriate bordered pits. There are plates of sclereides in the cortex, and the hypoderma consists of alternating radial bands of fibres and parenchyma."



Fortunately for the present generation, our scientific men and women are beginning to recognise the interest shown by the common people in things that count, and it is one of the most pleasing signs of the times to realise the hall-mark of simplicity with which our learned fellows are now framing their studies, so as to be understood by the man-in-the-street.

Skipping several years of my life as a Naturalist, during which I industriously pursued my outdoor observations, brings me to the point when, several years ago, I was, of necessity, compelled to devote my whole energies to the sublime prosecution of my hobby. These later years have proved to be the happiest of all, and my experience among men and things has broadened my outlook upon life, and brought me into touch with pleasant associations which I had always fondly striven to create. As an unknown writer has well said :—

“All men in their skeletons look alike. There are cultured men in the tents of India ; there are savage men in Parliament. The fabric of life is woven with warp and woof. The warp is made up of the long strands that keep us altogether, and that reach back far into the past. The woof is made of the short strands made by the opinions and events of to-day. The warp is the immortal part, and the woof is the passing show. The warp means Shakespeare, and Columbus, and Napoleon, and Cromwell, and Lincoln, and the Bible, and the Magna Charta. The woof is the news of the day as we read it in magazines and newspapers. He who forgets the warp of life becomes a shallow trifler, blown here and there like a fallen leaf by every chance wind of opinion.”

I have long since become an optimist, like the tuneful Thrush. An optimist !

“They found a lot of courage that simmered in the sun ;  
They blended it with patience, and just a spice of fun ;  
They poured in hope and laughter, and then, with sudden twist,  
They stirred it all together, and made—an optimist ! ”

The faculty of *wonder* which so completely differentiates us from the *brutes* has always been uppermost in my mind. Man is, and shall remain, the animal with the upward look. A friend of mine erected a welcome resting-place on the site of fair Hitchin Hill, and upon it had inscribed these blessed words :—

Look up ! Better ahead.

Nature, Art, Poetry, Science, Literature, Music, Crafts, Healthy Recreation, and all the rest of the things that count in human existence, means the enlargement of both our individual and collective horizons. All these are the common possession of the race. The Nature soul is bound to feel the thrill of transcendental mysteries, or it would not be itself. Beauty of form, colour, life, is eternal, for ever thrusting through into the temporal, and always elusive. He who sees Beauty, sees God.

As Browning has it in "The Guardian Angel" :—

"O World, as God has made it ! All is beauty :  
And knowing this is love, and love is duty,  
What further may be sought for or declared ? "

Surely we must sooner or later realise that a nation cannot altogether exist as a commercial undertaking. The masses cannot with impunity persist in despising Art, Science, Literature, Nature, and Compassion, and concentrating their souls on *pence*.

The rising generation yearn for knowledge of the world in which they live. They simply revel in every budding hedgerow, every flower-decked meadow. Every fairy forest, enchanted copse, or wayside pond they soon begin to realise is aglow with the glory of life. All Science testifies to its truth—matter is indestructible ; energy is unquenchable. Shall a meaner fate assail the soul of man ? And so the years—my years—speed merrily on. Nature has reciprocated the attention I have lovingly devoted to her children by giving me the outward appearance of perpetual youth. I seem to have discovered the great secret, and discerned the compelling vision.

The love of young people everywhere for Nature, for a knowledge of our past history and our future inheritance, is, to my mind, a hopeful solution of present-day problems. They—and those who humbly point the way to them—should be encouraged in every possible direction. This Nature-lore helps to create and to cement the greatest asset in human existence—Friendship. Quiet, meditative souls who revel in simple country delights know the real joy of existence, of old associations, old-loved spots, old friends and faces. My own experience has been fragrant with never-to-be-forgotten memories which the hand of Time cannot possibly efface.

It has been written that

"No flower is born to blush unseen,  
And waste its sweetness on the desert air,"



and, I may parenthetically add, no true friendship is made which does not help one along life's oscillating highway. Every moment instructs, elevates, refines, ennobles. Our knowledge, even after a lifetime of devotion, may not be encyclopædic; our philosophy may, perchance, be of the simplest, but there are certain maxims



FIG. 8.—THE MERE IN SPRING.

that may well be taken to heart. Sir George Birdwood has succinctly stated a few of these, thus:—

“Cultivate kindness; be lavish of your praise, and sparing with your blame. If you cannot praise a thing, or a man, leave it—or him—alone. Keep your mouth shut, and your eyes and ears open. Go out of your way to say a kind thing; shun the devil of temptation to be smart or unkind at the expense of a friend, or even an enemy, and sooner or later you will find your reward. Eat what you like, and drink what you like—in moderation, and you will never regret it.”

And as time goes on we may all cultivate these maxims. We may seek to learn something even of the past and present history of our own parish, for a local survey helps to build up a system for the nation.



We can all play our part loyally in the great and glorious world in which we share a common heritage. Nature ennobles and refines the emotions, and to-day, as a result of my life as a Naturalist, I see reason, design, intelligence, beauty, grace, dignity, use, wherever I go. The very ground over which I tread teaches me something of the footprints of antiquity. Life without a refining influence would be shallow indeed; one must always be ready to look into the mirror of knowledge. Much has, of necessity, been left unwritten. I have merely endeavoured to set down a general analysis of my impressions and experiences, and, as a benediction, I may repeat with Morley Roberts :—

“ In the Great Play that’s never done  
I have my part, a splendid one.

No one can take this part from me,  
’Twas cast at my nativity.

For only Death who taketh all  
Can end my hour majestic.

What if I die and drift away ?  
What if I weep ? ’Tis in the Play.

I might have owned no garden sweet ;  
No grass to cool my burning feet.

I might have lived a lampless one,  
Who lit no candle at the sun.

And so I’ll play the part I’m given,  
And for my hour thank Earth and Heaven.”

## CHAPTER II

### IN THE FOOTPRINTS OF SAINT ALBAN

ONE can well imagine that living at St Albans, in the very heart of such an historic city, and belonging to a family so well known, and so long resident in the town, every nook and corner of it is to me linked up with the graphic past, and full of personal reminiscences.

Quite early in my career the fascinating story of the proto-martyr made a strong appeal to me, and the site of Verulam is, and remains, one of my natural playgrounds. Every stone upturned, even after so long a time, may reveal some epitaph of the bygone, every step one takes is within hail of the footprints of the immortal Saint.

I walk along the old British Causeway this glad May morning, when Nature, all a-burst, is looking at her best. The Spring season thus viewed means a pertinent awakening, but, in spite of such a living survey, I cannot seem to shake off the memories of never-to-be-forgotten centuries. The things around me, the tall stately Poplars by the river Ver, the Swallows dipping in the water, the little Pipistrelle Bat fresh from its hybernating quarters, now flying about in bright sunshine; the plaintive madrigal of a gay-vested Redbreast—all interest and instruct as I reverently pace the same Causeway which Alban trod on his way to martyrdom, but I cannot dismiss from my mind the scene that was enacted here somewhere about sixteen hundred and fourteen years ago.

Historical details crowd one on the other in a most bewildering way, for, if the truth be told, it means that we have at Verulam, and its successor, St Albans, an epitome of the history of England. We note, as we walk towards the site of Verulam, the steep slope on either side, and, in the low-lying meadow beneath, the bed of what was at one time a Roman lake, since drained by the Saxon Abbot Allfric I. in A.D. 970.

Upon reaching the present end of the Causeway we may still inspect a block of masonry on our right, a remnant of the wall



which once enclosed the Roman capital of Southern Britain. Verulamium was 190 acres in extent, Pompeii was 160 acres, so that the former rivalled the latter in size as well as grandeur. Close to this block of wall the Pageant of 1907 was held, when my old science master, Mr Charles H. Ashdown, mapped out for presentation eight of the chief episodes connected with Verulam and St Albans. It will be interesting to have a permanent



FIG. 9.—ST ALBANS ABBEY FROM THE SITE OF VERULAM.

record here of these episodes in the order in which they were presented, thus :—

- I. Julius Caesar and Cassivelaunus. Monday, September 10, 54 B.C.
- II. Boadicea. A.D. 61.
- III. The Martyrdom of Saint Alban. Sunday, June 22, A.D. 303.
- IV. King Offa founding the Monastery. August 1, A.D. 793.
- V. The Queen Eleanor Procession. December 13, A.D. 1290.
- VI. The Peasants' Revolt. 1381.
- VII. The Second Battle of St Albans. February 17, 1461.
- VIII. Queen Elizabeth at Gorhambury. July, 1572.

Standing upon the central site of Verulam to-day, where corn crops will soon be hastening towards the harvest, it is difficult for the infrequent visitor to conjecture these great episodes of bygone times. It is, however, to the student a continuous story



of our national history, our national christianity, and our national liberties, an unbroken sequence through many generations proving our ancient heritage.

Steeped in a love for his native place, small wonder, perhaps, that one, such as myself, should be so enraptured with even casual reflection upon these magic happenings of the past.

Seated upon the old stile over which I vaulted in sheer delight as a boy, I look across the sunstruck fields this May morning, and completely lose myself in visions of the past. Immediately before me is the site of a Roman city of great magnificence and splendour; on the slopes of Holmhurst hill yonder I discern the more modern (and yet ancient) city named after the Saint, with the square Norman tower of the Cathedral a silent witness of the prowess of our ancestors from across the Channel. My sister, who is with me, mentions in a whisper the magic names of "Cæsar, Cassivelaunus, Boadicea, Alban!" Here, we are in the midst of surroundings which few, if any, places in England can eclipse, and, as an old Albanian, I am naturally proud of this ancient connection with the earliest recorded history of our land. In Roman times Verulam was one of the two Municipia, or free cities, of Britain, York being the only other place thus dignified. Verulam was granted the first Charter of Britain in A.D. 42, York followed some thirty-six years later. London was in those far-off days a place of little importance. My sister has left me seated, looking, longing, and loving. She has commenced exploring for any remnants of Roman occupation. First she discovers a small fragment of the beautiful glazed Samian ware, later, a rusty nail! Every object is worthy of examination, for, in the footprints of Saint Alban, one never knows what treasure may be disclosed. I am still soliloquising on the old stile when a great shout rents the air. The sudden incursion rudely disturbs my peace of mind. It seemed, for the moment, as if Boadicea herself had come from her resting-place to proclaim in person the law of *right* over *might* on the very spot where she, heroic Queen, had given her life so many years ago.

But the cause of the mighty shout is now manifest, for, standing by my side, my sister displays a magnificent Roman fibula which she had just unearthed, a notable addition to the honoured cabinet of remains gathered together with loving hands by one who shares with myself the glories of a past age in the environs of my native place.

I look across the undulating fields, and I hear anew a soul-

inspired Blackcap in the little copse on my left, the progeny, may be, of one that sang in days gone by to brave Cassivelaunus, or all-conquering Cæsar, when Roman rule held undisputed sway at the spot where I write these lines. Then, I look through the tall trees towards the valley of the Ver, and witness, as if kine-matographed, the stately entry of the Druids during the 1907 Pageant, and seem to hear again the weird music (the wail, or dirge, of the Roman women), composed by my old schoolfellow, W. H. Bell. I see Cæsar on his charger handing his ring to Cassivelaunus, the British chief, the latter having sued for peace. I perceive Alban, some three centuries later, bidding farewell to Saint Amphibalus near the city walls, and refusing to worship the Roman deities. Thus is my native city for ever associated with primitive christianity, the martyrdom occurring within three hundred years of the crucifixion of Christ. Moreover, the English christianity of to-day is inseparably linked up with the christianity which converted the Roman world.

There now flashes across my mind the scene enacted by King Offa, who, guided, we are told, by a brilliant star in the heavens, is believed to have discovered the bones of the blessed Saint. Offa was king of Mercia. He had a palace at Offley, near my present home in the north of Hertfordshire, and may be designated father of modern English Independence, and, as has been well said, no matter what our personal opinions may be, he was the first of that line of politicians who utilised religion in the service of the State.

To this desire on the part of Offa to find the relics of the Saint, and to erect an edifice on the site of the martyrdom, the present city of St Albans owes its inception. The foundation of the Monastery brought into being the new town which rapidly sprang up around the monastic buildings, so that to-day we look from Verulam's fields and woods towards the newer city on the hill beyond. Thus does St Albans itself present to us a fairly continuous story of England from the time when, in 793, King Offa founded a monastery, though it should be stated that a Church was erected on the spot now occupied by the Cathedral as early as 313.

We cannot enter the sacred precincts now, so brimful of historical interest ; suffice it to say that in History, Art, Printing, Music, Philosophy, Religion, Sacrifice, and other epochs in national life, we are here in close touch with individual and collective evidences of bygone England. British, Roman, Early English, and



Mediæval times are all represented in and around St Albans, and one's pulse is quickened at every turn when treading in Alban's footprints, which even the hand of Time has not altogether effaced.

We halt at the only other monastic building remaining, the Great Gateway, dating from 1365. An earlier building was blown down about 1361. It was here that the storming of the Gateway took place during the Peasants' Revolt in 1381. Wat Tyler had come hot afoot from London town to lead the city's

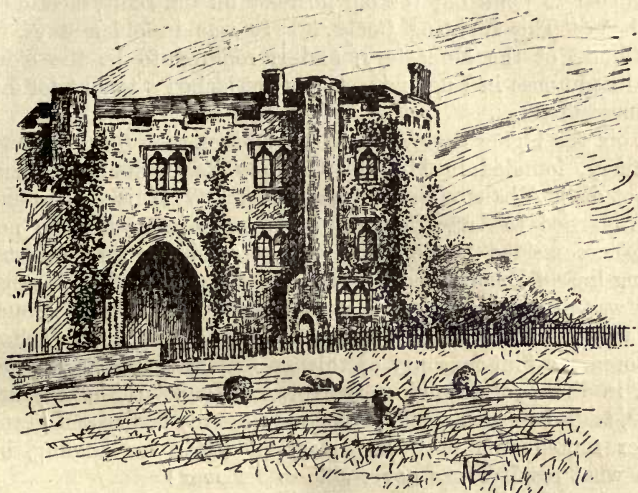


FIG. 10.—ST ALBANS GRAMMAR SCHOOL.

inhabitants in fierce revolt against the tyranny of the Abbot and his satellites. Richard III. appeared with his army in person, won the day, and held a Court in the courtyard, which was situated near the broken ground now transformed into a verdant meadow, where placid sheep are quietly grazing. This historic monastic building now serves as a Grammar School, and I remember how, as a schoolboy there, I was keen upon climbing the dizzy heights of the ivy-covered walls on the south side, shown in the accompanying sketch, for the purpose of discovering the nests of Sparrow and Starling. Previously, my old school was housed in what is now the Lady Chapel of the Cathedral. It was removed to its present position in 1870, and was, in all probability, founded during the Saxon period in the reign of



King Edred. It may here be mentioned that Albanians claim Verulam as the first place recorded in authentic English history under a specific name, my old school as the oldest school in England, and St Albans Cricket Club as the first one established in this country. I am proud to have been brought into touch with all three of these institutions. Near this Great Gateway George Tankerfield was burnt at the stake in 1555.

On our way back from the site of Verulam, retracing our steps along the Causeway which Alban trod on his way to martyrdom, I omitted to point out the old hostelry on the right, facetiously dubbed "The Fighting Cocks." It was in olden days the boathouse of the Monastery, and is reputed to be the oldest inhabited house in England. It has not lacked a tenant for over a thousand years.

From the higher ground there can be seen the ruins of Sopwell Nunnery, founded in 1140 by Geoffrey de Gorham, sixteenth Abbot of St Albans. In the Chapel Henry VIII. is said to have been married to Anne Boleyn. It is more interesting to note that here resided Dame Juliana Berners, who wrote the first of a long line of English sporting works, "The Book of St Albans." This was printed at the Monastery Gateway by John Insomuch, and was published in 1486. Many a time when a boy I have explored the flint masonry of this ancient structure of Sopwell, and, in the pool adjoining, remains no doubt of the old fish-pond, angled unsuccessfully. At one time my father and grandfather rented this particular piece of water for angling, but with what result I was never able to discover!

Leaving the Great Gateway and ascending the steep hill of George Street, once the old coach road, the spacious High Street comes into view. The Waxen Gate, where the pilgrims to the shrine of Saint Alban lighted their candles, is still to be seen, and, hard by, the Clock Tower, the tower of which was erected between 1402-1410 in order to ring the Curfew. It contains a bell known as Great Gabriel. Where the fountain now stands there previously existed an Eleanor Cross, erected by Edward I. to mark one of the resting-places (the Abbey) for the night of the bier of his dead consort, Queen Eleanor, when being borne to Westminster in June 1292.

Near here the redoubtable Cromwell arrested Thomas Coningsby in 1643; along quaint old French Row, occupied by French prisoners in 1216, are the remains of ancient hostelries, at one of which, the "Old Christopher," David Garrick stayed

when visiting St Albans with his friend Quin in 1765. Garrick, it may be remarked, composed during his visit some facetious lines anent the remains of Humphrey, Duke of Gloucester, whose tomb at the Cathedral is the only royal monument it contains.

The old Moot Hall is not far away, where, in 1581, the great John Ball and other insurgents were tried before Chief-Justice Tressilian. Henry VI. held a Council of War here upon the opening day of the first battle of St Albans in 1455. Along this thoroughfare William Redhead did penance in 1427 as punishment for promulgating the Lollard doctrine, and on our left, a little farther up than the Moot Hall, is to be noted a fine old Tudor dwelling with a wrought-iron balcony. In the reign of Charles II. it was the residence of Lady Alicia Jennings, and it was from this house that Queen Elizabeth was presented with an address of welcome, on her way to Gorhambury to visit Sir Nicholas Bacon, father of the Philosopher.

The Bull Ring, for bull-baiting, once occupied a site close by, and the wide expanse of St Peter's Street, flanked with lime trees on either side of the road, was, it is believed, a Roman *cursus*, or racecourse, when Verulam flourished, and was also the chief scene of the famous Wars of the Roses.

As a boy I always used to very politely raise my hat to a dear old lady, Miss Lydekker, who then lived at Hall Place, opposite Pemberton's almshouses. The former has now been demolished. It is stated that Henry VI. slept at Hall Place on the night of the first battle on May 23, 1455.

It is market day as I write, and the Market Place, and a part of St Peter's Street, has still its complement of wooden stalls with canvas awnings, a dying remnant of Old England. The streets are crowded with pedestrians, the snorting motor-buses are carrying living freights to and from the town, but few there be who appear to have any interest in the historical associations of the place. The Cathedral, of course, is the Mecca of many visitors, and, in spite of its being rather out of the way, so is the most excellent County Museum of natural and human exhibits; but, as I watch the devotee of the fragrant weed entering the tobacconist's shop at the corner of Victoria Street, near the very ugly Town Hall erected in 1829-30, I wonder whether he realises that, in the first battle of St Albans, the Duke of Somerset was slain upon the door-step of a previous building here known as the Castle Inn? It is said that Duke Somerset had been warned by a wizard to "beware of a castle," and, in consequence,



always lived in a humble house. Shakespeare refers to this in the first part of Henry VI., Act v., Scene ii. :—

*Rich.* So, lie thou there ;—

For underneath an alehouse' paltry sign,

The Castle in Saint Alban's, Somerset

Hath made the wizard famous in his death. . . .

It was, then, in this broad thoroughfare of St Peter's Street that the famous battlefields of 1455 and 1461 were situate, and I remember how, as a youngster, I used to think about all these incidents when I went to a farm early each morning to fetch a can of milk. The Borough Gate end of the thoroughfare is crowned with the Church of Saint Peter; this, as with Saint Michael's and Saint Stephen's at the other extremities of the town, having originally been built by Abbot Ulsinus in 948. The Roman Forum was close to St Michael's, and there is a fine tomb to the imperishable memory of Francis Bacon, who died in 1626. He lived for many years at Gorhambury, the seat of his successor, the present Earl of Verulam, and there wrote his famous Essays. Reading one of these recently I came across these appropriate words :—

“I hold every man a debtor to his profession, from the which, as men do, of course, seek to receive countenance and profit, so ought they of duty to endeavour themselves, by way of amends, to be a help and an ornament thereunto.”

There is also a Crusader's tomb of about the fourteenth century at St Michael's, and several other items of interest.

At my old school I gained a great deal of local information as a result of Mr Ashdown's personal influence. He was in those days a new-comer to St Albans, but has long since proved its loving historian. I cannot stay to mention the long line of illustrious scholars who were educated there, but may refer to a few pre-Reformation worthies, such as Alexander Nequam, foster-brother to Richard Cœur de Lion, who became a Master there, and was buried in the Abbey in 1217; Matthew Paris, to whom, as an historiographer, the Monastery owes a great deal; Sir John Mandeville, the famous traveller; and Nicholas Breakspear, who, as Adrian IV., was the only Englishman to become Pope of Rome. It is worthy of notice that, on completing his studies at the old school, Breakspear sought, but was refused, admission to the Monastery on the ground of insufficiency of learning.



We have, during this little pilgrimage together, gained much information concerning Verulam and St Albans. We have trodden, as it were, in the footprints of Saint Alban, and have followed the footsteps of William the Conqueror, Paul de Caen being the first Norman Abbot of the Monastery.

Every square yard of this ground is historic, and to an intelligent resident or visitor there is opened up a broad vista of the mighty past. The pity of it is that so few seem sufficiently interested to avail themselves of this stirring story of bygone England, and it is largely left for visitors from afar to appreciate what remains exist, and to help extend our knowledge concerning same.

I realise, as I renew acquaintance with these scenes of my youth, the supreme importance of knowing something of one's homeland, even, as I hinted in my opening chapter, of one's own little parish. Each parish should have its own monographer, the man (or woman) who is able and willing to study the evolution of the human race, as it were, upon the spot. With such fragrant memories as I myself possess of St Albans, both historical and picturesque, I am convinced that life is made fuller and sweeter by *knowing*, *feeling*, and *realising* that one is treading day by day upon hallowed ground, where great thoughts may arise from even trifling things, for, as Ruskin says :—

“What fairy palaces we may make of beautiful thoughts, bright fancies, satisfied memories, noble histories, faithful sayings, treasure-houses of precious and restful thoughts, which care cannot disturb nor pain make gloomy, nor poverty take away from us—houses built without hands, for our souls to live in !”

## CHAPTER III

### NATURE STUDY, THE TEACHER, AND THE CHILD

I. *Nature Study*.—The study of Nature is, if rightly interpreted, the gospel of LIFE. Its importance to-day is recognised in both Week-day and Sunday Schools. Its fostering and inculcation will mean a great deal to young England of the moment, and grown-up England of years to come. The leaves of this great outdoor book are always open for inspection by those who care to consult them.

We ourselves—we humans—occupy a prominent place in Nature's great and wondrous scheme of existence, in the vast web of life. Never was there greater need than there is to-day for expounding the wonders of Nature, a study which embraces earth, air, and sea, and all pulsating life that is on and in them. Knowledge is especially called for to-day in an age when unreal pleasure is so prevalent, when frivolous amusements invite—and often allure—us at every street corner, when it is important for us to recognise some of the saner things of life, things that matter. This whole subject of Nature Study, rightly interpreted, should be treated and received with both reverence and sympathy, and I am one of the growing band of scientific men who firmly believe in the reconciliation of Science and Religion.

Probing into Nature's secrets has existed from the time when man first set his foot in the primeval forest. The Greeks of old even worshipped trees. They saw a Dryad in every one of them. Perhaps Solomon was the first Naturalist. "He spake of trees, from the cedar tree that is in Lebanon even unto the hyssop that springeth out of the wall; he spake also of beasts, and of fowl, and of creeping things, and of fishes."

After Solomon came the famous Greek philosopher Aristotle, who lived in 384-322 B.C., probably the greatest scientific man the world has ever produced. Aristotle had to wrestle with a subject of which the world knew little, for, as far as we know, only Solomon, the wise man, had preceded him in Natural History study. It speaks much for Aristotle that it was not until 1492



that any further practical work was done in adding to the famous Grecian's monumental discoveries. The nineteenth and twentieth centuries, however, saw a perfect invasion of men of science, all seeking for knowledge, all seeking for *truth*. Now scientific research and study have received a temporary check; but when all our thoughts are transferred to more peaceful things, to more peaceful occupations, to the better employment of leisure hours, more knowledge-seeking, more intelligent pursuits and pleasures, then many will turn to the country for solace and delight. The study of Nature is the birthright of everybody. It has made slow, but sure, progress throughout the ages. It has been handed down to us from generation to generation. It is no "preserve" of the learned, it may become the precious possession of all, young and old, rich and poor.

Nature Study is one of the most fascinating of the sciences because it deals with living, and, let us hope, happy creatures, by whom we humans are surrounded, creatures—both animals and plants—who pass their daily lives with us and around us, under our own eyes as it were. Yet people are mostly blind and unresponsive to the manifold delights which are to be found in the outdoor world. We are all of us, men, women, and children, birds, insects, flowers, part and parcel of the great scheme of life. Recognition of this inter-relatedness, as I may call it, seems to me to be one of the chief solutions of social problems to-day. We *must* go to Nature for prompting as to how best to act. The web of creation is such that the idea of more co-relation among human folk becomes pertinently manifest to all those who follow the story of the country-side. I have proved many times during my own earthly pilgrimage how influence passes all unconsciously from A to Z, although Z may be quite unaware of A and *vice versa*. A student of Nature, of living creatures in their own homes, is always coming up against, and marvelling at, this wonderful web of life, this natural and well-designed dove-tailing as I may christen it. The humblest investigator may, by diligence, find sufficient even in his, or her, back garden to amply repay, nay, overpay, not merely the study of an hour, but the devotion of a



FIG. 11.  
WHITE CAMPION.



lifetime. Charles Darwin's recipe might well become the heart-engraved motto of all those who would successfully enter the threshold of Nature : " It's dogged that does it."

When I think, as I so often do, of man's triumphal emergence from the forest ; when I think of the heaving bosom of our great Mother Nature once entirely hidden by the deep dark waters of æons ago ; when I think of a one-time flowerless and birdless world ; when I think of the bright and beautiful world in which we live to-day, of the great strides in human existence, human thought and deed, then, as Coulson Kernahan says, even the heart of the tiny wayside flower seems to portray to me the likeness of an all-wise Creator, and I must for very joy of life cry aloud, " I believe."

Believing, then, that the study of Nature is something worth pursuing, that it is a subject fit for old and young alike, and not merely for the Kindergarten, or the Nursery, as so many seem to consider, it at least teaches me to be tolerant in all things. Nature knowledge has been proved over and over again to be of value to the individual, and can be so applied by the painstaking and zealous investigator as to be of welfare to the community, and even to the State. But, perhaps, above and beyond all, the chief value of Nature Study is its priceless value to the character and inner life of the individual.

Nature is prodigious, but she is not wasteful. Civilised man has been wickedly wasteful since he emerged from the forest ages ago. Earth's treasures, animals, plants, rocks, minerals, have been granted to us for our support, our comfort, and our improvement. Some of them are usable within reason for the benefit of humanity, but the wilful slaughter of harmless animals, the destruction of plants, the neglect of forests, the misuse of crops, and all short-sighted and ignorant waste should stop. But the greatest of all values to the individual is the cultivation of a love of the beautiful. Nature is the greatest and truest Art Mistress in the world. Her masterpieces attract, impress, educate, and inspire. One who studies her wisely and well cannot fail to see what is beautiful, or hear what is harmonious. The ear is very receptive, for one can read the music score of the bird orchestra ; and even the sighing of the wind, patter of rain, gurgle of the brook, gentle stirring of the trees in leafy June, monotone of winged creatures, drowsy hum of busy Bees, should be noted and loved, and the mind enriched thereby.

We often speak glibly of our senses of sight, hearing, feeling.

Nature makes us use all these in a more quickened way. Observation, and a sense of the wonderful in Nature, make us quick-witted, keen to perceive, receptive, and retentive. Nature helps to lead the mind, upon which the glory of the sunrise of the soul has not yet risen, up to Nature's God. There is no need to be great explorers, to have a splendidly-equipped laboratory, nor costly instruments. Nature Study is one of the cheapest hobbies in existence, though it cannot be purchased in penny packets.

I am a great believer in common things, and the common people. This reminds me of an anecdote related in a recent book concerning President Lincoln. A diary note in his book reads as follows: "The President to-night (Dec. 23rd, 1863) had a dream; he was in a party of plain people, and as it became known who he was, they began to comment on his appearance. One of them said: 'He is a very common-looking man.' The President replied: 'The Lord prefers common-looking people. That is the reason he makes so many of them.'" Lincoln undoubtedly struck the right note. This living lore of Nature appeals to the soldier upon the battlefield, for the rich dulcet notes of the soul-inspired Nightingale help him to forget the thunder of the guns, and it fortifies the intrepid explorer during his Arctic solitude. I read in my paper that an article, "Leaning on a Gate," brought a letter to the writer from the trenches thus: "Continue to breathe out these pantheistic prayers for us. . . . It is because this war has taken place in the open air that I still live. Could it conceivably be carried on *indoors* I should perish utterly. Sunrising—sunsetting—song of birds—wind in the trees—on these I thrive. . . ." There you have it.

My mind wanders to the Arctic wonderland. I think of brave Captain Scott and his comrades of imperishable memory. When writing his last memorable words to his wife Scott said: "Make the boy interested in Natural History if you can; it is better than games; they encourage it at some schools. I know you will keep him in the open air." I venture to submit that no greater testimony was ever borne to the value of Nature Study than these never-to-be-forgotten words, penned by Scott just before he passed over the horizon to the Great Unknown. Let us hope that very soon now men, women, and children will remember that intellectual pursuits *do* count in this life, and that too much frivolity is no tonic for the *soul*. The eternal work of God is in every form of creation. In Nature you meet the Creator face to face, yet, how few, alas, come to make His



acquaintance. Our girls and boys are, be it noted, keen to know something of the great world in which they live, move, and have their being. And it is up to those of us who are grown up, let us hope in the light of good deeds and noble aspirations, to assist and direct them as far as lies in our power. Everybody has a *touch* of Nature in his or her make-up, a little bit of the gospel I preach, but it is something that should be cultivated, for each step into the forest makes us pause and consider. One must



FIG. 12.—NATURE'S MIRROR.

walk with a stout heart; and the healing sunlight will bleach many an ugly secret. The magic of the country-side will work wonders untold, and reveal marvels worth their weight in gold. Go out into the great world of Nature, and listen to the mighty chorus. Somewhere you will assuredly find the heart and love of the Creator, for everywhere in Nature the Almighty is housed in His handiwork, and lives in His creation. Get into touch with the Infinite. There you will find beauty, design, intelligence, solicitude, and love. There, in Nature, is the palpitant beauty and pulsing song of existence. The Grecian Poet Euripides, the friend of Socrates, who lived some 2400 years ago, must have been intimate with the thesis I have propounded, and his teaching may well be taken to heart. Euripides wrote: "Study the



book of Nature that God hath spread out before thee ; so thou wilt store up knowledge within thy brain, and peace within thy heart."

II. *The Teacher*.—Having given a very brief résumé, as it were, of Nature Study, we now come to the crux of the whole matter, and one finds it difficult to convey in written form an accurate idea of what it is most essential should be made known. Perhaps if I write *as I feel*, and as I should speak if I was addressing a gathering of teachers themselves, the difficulty will be best met. With *the teacher* lies success, or failure. Upon him, or her, everything depends. The children look up to the teacher for guidance, encouragement, appreciation, and the marshalling of knowledge. The Nature teacher, or, if you will, the loving interpreter of Earth's secrets, has, it must be admitted, an unique opportunity of doing real, good work, but there are pitfalls galore, especially for those who, desirous of acting as interpreters, know little, or nothing, of the subject before them. This applies with equal force to Day and Sunday School teachers, and I have myself come across pitiable examples of the former during the course of my wanderings. To me as a born-in-the-cradle-naturalist, as a lifelong student of Nature's children, birds, beasts, fishes, insects, flowers, and the rest, I know, appreciate, feel, and can to *an extent* reveal, or, should I not rather say, *humbly point the way*, to the enquiring and receptive mind. I can, in a measure, advise the teacher who is desirous of instilling Nature lore into the minds of children, what I consider, as a result of my own actual experience, the best method to adopt. I can relate, or write down, apt illustrations that I have myself culled from the great and ever-open book that, as the old chronicler says, lies expanded before the eyes of all. There is nothing egotistical about this personal experience. It is the birthright of everybody, but few there be who appear to take full advantage of it. Some who live in towns and crowded cities state that they lack opportunity for being brought into contact with Nature, that they have the desire, but no means of carrying same into practice ; others who live in the heart of the country, within the very joy-wheel of Nature's Wonderland, find it, they tell me plainly, excessively dull and uninteresting !

There is no doubt that things of the country interest people more to-day than ever before in the history of the world, but a very small percentage of our population is thus impressed, and there is much spade work to be done before we are out of the

trenches. The great *hope* lies with *the children*, the great *onus* is upon *the teacher*.

I am a great believer in *heredity*. Practical proof is the best witness, and I have it in my own case. The seed was *there*. All that was required was a suitable environment in which the precious seed might *germinate*. That, fortunately, was forthcoming. There has been no set-back, no lack of opportunity, no lack of enthusiasm, no lack of encouragement. There have been a few unforeseen disappointments, but, in spite of these, often in spite of myself, I have gone forward with my studies in the sure and constant faith that it was ordained I should, during my earthly pilgrimage, undertake and carry out the work for which I appear most fitted, and, what is most important of all, which I most like. At times, as in other walks of life, discouragement and disappointment comes even to the student of Nature. That is the Great Mother's *test* as to the true love one has for her countless children. Then, if there be lack of knowledge and of opportunity, and yet a desire to know, foster, inculcate, and reveal, what is the remedy for the teacher who courageously confesses his, or her, ignorance of the great world of life?

Books are a useful, and indeed indispensable, vade-mecum, a sheet-anchor of inestimable service. They are essential for reference, for imparting information, for gaining inspiration, for mind training. All teachers anxious to deal with this subject of Nature Study among their young charges should have a select library of volumes near at hand by means of which they may be guided and inspired, but the only sure and satisfactory way of gaining first-hand and lasting impressions, brimful of personal knowledge, coupled with crisp anecdote and experience, of being best able to point a moral and adorn a tale, is for the teacher to become a zealous and painstaking Nature student himself. This does not imply that, under such circumstances, books should be eschewed. We all use them, or should do so, but even those with limited time at disposal may take a walk in the park, or country, and find, as a result, that such an expedition may be made a constant source of joy and pleasure, a scientific exhibition. Granted the full use of eye, ear, and mind, sufficient information may be acquired from even a few moments' intercourse with Nature as will serve many useful lessons. The teacher who commences seeking for Nature knowledge when grown up will, at first, find it much more difficult to become an apt pupil at Nature's School than if he, or she, had been on the roll-call when



in infancy, or, at latest, before reaching the teens. I have, however, had some rather remarkable experiences among grown-up converts, and feel sure that *perseverance* will accomplish a great deal, when it is realised that, both personally and collectively, this Nature seeking is worth following up, especially in an age when the stimulating influence of the country has such a marked effect for good upon those who keenly feel the necessity for solace, change of scene and occupation, and who possess a genuine desire to know something of the world of life by which they are surrounded.

One's own experience from childhood upwards presents at all times, and in all walks of life, an interesting retrospect, and this is particularly true with regard to Nature Study. A whole sermon might well be preached to a countless congregation on the subject of *Initiation*. I am led to write thus because of a remarkable set of lines that appeared under this title in a weekly contemporary. I cannot quote them in extenso, but may give the opening and closing lines, thus :—

“I remember now (Dear God, with tears of joy!)  
 When I was but a little curious boy,  
 I wandered in the sparkle of the Spring;  
 Oh! I remember raindrops glittering  
 Close to the earth in primrose goblets new,  
 And tiny ants that crept, and birds that flew  
 Swift past my ears. . . .”

This stimulating poet (I know not the author) goes on to write of *the awe* experienced by the little boy in the mighty fastness, in the great arena of Nature; of meeting “Fear,” and then, sighting a Squirrel leaping high in the pine-tree tops, terror left that little boy, for the gay wood-sprite, “that nut-brown elf,” had won his tiny heart. Afterwards, dread of the great secret came unto him. He fought it for a time, but it was all in vain. “Don't Care” ventured across his path, until the voice of a lonely Cuckoo was heard filtering through the dell, and thereupon the mystery again appalled him. He could not read these wondrous signs of Nature, these footprints of creation, and tore in terror from the woods, though, as he says, so close to Heaven's shore! And then this Nature interpreter concludes :—

“But afterwards, and sometimes now, I please  
 To wander with the winds among those trees;  
 No awe enthralles me now, although alone  
 I am in heaven; nay, almost at God's throne!”



What a beautiful parable, what a remarkable conception! I, too, have run from the woods in very terror, for I could not understand, or fully appreciate, the vastness of creation. I perceived the tiny insect crawling underfoot, and straightway my eyes sighted the giant tree of the forest towering above me. I am no longer awed, but *thrilled*, with the marvels of the Universe, and teachers, who wish for success with their young charges, must undergo similar experience to attain any real measure of success. Build up a lesson for the children on this fascinating story. They revel in fairy tales of Nature. They glory in the radiating romance of the country-side. I like those closing words "almost at God's throne," for a Nature lover and student cannot possibly be a sceptic. A master mind is portrayed in every flower that blows, in every creature that cleaves the air, or scampers on the earth beneath. I heard of a man recently who began life as an atheist, and who died a spiritualist, a transformation indeed. A Nature interpreter *must* be reverential, he *must* believe in some All-wise, All-powerful, All-supreme power, planning, designing, bringing into being, and controlling everything that lives. I met a little boy the other day. He was from the slums of London. He was not awed, nor terror-stricken, he did not meet "Don't Care," or "Fear." True, he could not tell me the *colour* of Grass, his senses were inalert, undeveloped, his mind was only partly receptive to sight and sound. But he loved the change from the squalor of Plaistow to the pleasant environment of a Garden City. He shouted for very joy; he suddenly realised the meaning of liberty and life. I shall never forget that wayward little face, nor his simple benediction at the close of our little country expedition together: "Please, Sir, will Heaven be anything like this?" Thus does Nature inspire and elevate, both in thought and deed. What She has done to inspire men and women in various departments of life—Art, Science, Literature and the rest—will probably never be told. It is an unwritten story.

Alexander Irvine was a half-starved Irish youth. One day, when in the country he looked at the sunset, and had a vision. Tears began to flow. Struggles ensued, bitter disappointment, troubles unexpected cropped up. He became a soldier and the evangel of his regiment, and eventually God's Good Man, for, as a missionary among the Bowery Lodging Houses, under the benign influence of the Y.M.C.A., he carried out a noble work which will ever be remembered. Thus was his vision fulfilled,

as a direct result of the sunset, which, in Irvine's case, meant on the morrow the sunrising of good and heroic deeds, of a life well spent in the cause of his fellows. Such visions and inspirations are stimulated, fostered, and brought into being, as a result of contact with Nature. He who walks with Her may read, and every teacher, desirous of obtaining the best lessons for handing on to the child, should become a practical student in the interests of posterity. An hour well spent in the country alone, or with a kindred spirit, is worth all the book learning in the world. Sight and sound are more focussed upon the eye and ear, they become more impressionable, more lasting. Do not be discouraged at the labyrinth of Nature. To the inexperienced, and the beginner, it is a veritable maze, but "Nature never did betray the Heart that loved Her," as Wordsworth sings, and many there be who have proved the truthfulness of the Poet's message. It is not an easy path to tread. Much patience is required, and, as I have already written, boundless enthusiasm. If life in the country drags, or becomes a bore, one must give it up. Nature cannot be MADE to appeal, unless there is an incentive to learn, unless there is a very real desire to become intimately acquainted with the wonderland by which we are surrounded. It is a case of *response to stimulus* as I have over and over again proved, and, knowing of the response that will assuredly come, as a result of any effort which tends to promote the common good, I have no hesitation in recommending the teacher who reads these lines to take up the subject with all the enthusiasm and love at command.

III. *The Child*.—We now come to the third section of our story, and have to consider the all-important subject of *the Child*. Whilst *the choice of subject* for a lesson in Day or Sunday School demands close consideration, and the qualifications of *the teacher* must, of necessity, be earnestly borne in mind, the question of *the Child* is, after all, most important. Children vary so much in character and temperament that it is difficult, nay, almost impossible, to lay down any hard-and-fast rule. One must endeavour, as it were, to strike a happy medium, and so apply the lesson that it shall make some sort of appeal to all concerned. My own experience teaches me that, with very few exceptions, every child is, when carefully approached, fostered, and nurtured, ready and willing to receive any information which is imparted in a crisp, anecdotal, and refreshing way. The child has the mysterious future before it. It has a sense of



the wonderful and beautiful engrained upon its soul. It is eager to know something of the great world of life round and about its own little orbit, and it is up to the teacher in charge *to endeavour to point the way*. The child is full of day-dreams, and very often night-dreams as well. It desires to feel, and to realise, *things that are*. It is continually seeking for first-hand information, asking *How, Why, When, and Where*, and the teacher must see to it that he, or she, is so accommodated as to be able to satisfy all demands. This is a tall order as I have long since discovered. One must be prepared for emergencies of almost every kind. There is, as I have already indicated, no rule of thumb, and it is



FIG. 13.—WILD GUELDER ROSE.

a good and blessed thing that Nature Study lends itself to so much elasticity. To a very large extent one must be guided by local conditions and circumstances. The teacher may perhaps map out, prepare, and even commence, a well-thought-out lesson on such a topic as the beauty of Flowers, and, by mere chance, the whole subject of the lesson may be changed quite suddenly, and all unconsciously, and the lesson may more than likely conclude with a dissertation on the Donkey! One important factor

to be considered is to deal with things known by sight, or sound, to the children, things they see, or hear, every day. It is necessary they should familiarise themselves with these, and the teacher would do well to set them to work on their own account. Wherever possible, too, let the subject treated of be of a seasonable character. In the glad days of Spring, for example, it is a good idea to draw attention to the resurrection of plant life, such as the coming of the modest Snowdrop, or that brave herald, the dear, dancing Daffodil. The first bird's nest will conjure up wonders untold, the mysteries of bird migration will evolve many points of immense interest, and one might suggest also at such a time the remarkable hibernation of Butterflies and other animals which have been asleep throughout the lone Winter days. The fascinating life-story of a Butterfly, Moth, Beetle, or other insect, may be related, and will, I venture



to predict, provide a fund of interest and wonder as the various stages in its existence (each, mark you, more beautiful than the last) are unfolded. The pollination and fertilisation of flowers, the songs of newly-mated birds, the wondrous wealth of life in the nearest pond, the crowning of the Blackthorn bush with milk-white blossom, the staircase of the Spring, the great gallery of Summer, the magic of an Autumn day, the "marking time" of King Winter, might all with advantage receive wrapt attention. Let the children *know* and *feel* that the animals and plants by whom they are surrounded, with whom they live their daily lives and share a common heritage, have a right to exist, have wonderful life stories to unfold. Point out how, in various directions and in diverse ways, these creatures of the wild are useful in the great economy of Nature, in different departments of the immense world of life. Let them realise how, as plant succeeds plant, various insects, birds and other animals are closely associated, and co-related, so as to show a connected interest in the fascinating story. From the simplest, or most familiar, animal or plant, lessons may be culled of use, beauty, design, intelligence, and in the case of many, if not most, animals, lessons of love, patience, solicitude, unselfishness, care, affection. Teach the children to be kind and considerate to all wild creatures. Some of the boys and girls have, alas, a desire to collect, or destroy. It may not be wilful, but rather thoughtless, destruction, but it undoubtedly exists, and should be dealt with in a firm manner, tempered with kindness. In a word, they should be taught to be just and merciful. Bear in mind how important it is to recognise that it is our boys and girls who will hand on to posterity the teaching of the grown-ups of to-day. Some of the children will have little garden plots to tend, either at home or school. Here is an opportunity not to be missed, for each garden flower, or wild tenant, has a wondrous story to unfold, if looked at and considered aright. Encourage personal observation and application. Let the young people feel that they have a hand in the lesson, that they themselves are helping to build up the story revealed. Make an appeal to their powers of imagination, but stick to concrete facts. Work in a little physical geography, and local history. It is remarkable to notice how a well-told tale of bygone Britain appeals to them, and how, when put to the test sometime afterwards, so much of the information has remained. The teacher should be prepared with a wealth of good stories, and personal experiences. Let there be bound-

less good humour in the lesson. Make the children laugh, *almost* make them cry. Make a bold appeal to their finer senses, but do not overload, or overdo, it. Otherwise, disaster will surely follow. Be sentimental, but not over-sensitive. It doesn't do. Go straight to the heart, but do not bore with too much sermonising. Sow, to the best of your ability, the seed of the great Mother Nature through *the senses*, so that it may eventually germinate, and bear fruit, in the garden of *the mind*.

Children are always keenly interested in learning elementary lessons respecting the production of living things, and it is a capital plan to conduct a series of talks upon *the story of the seed*. For preference, have ready for class use a small packet of the seed of a familiar plant, such as Mignonette or Nasturtium, and, if the living plant can be shown at the same time, it will greatly help to drive the story home. Young people, I find, invariably insist upon having some (and very often much) direct *evidence* brought before them, although they evince a wholesome respect for the experience of the instructor who shows an intimate knowledge of his subject. Having shown the hard seed—inactive, *apparently* void of energy, or life—build up the story gradually. Children cannot take in too much at one gulp, and a little at a time is all they can manage. If an acorn is brought into class, much material will be available as it is a well-known fruit the children are familiar with, and every girl and boy recognises at sight an Oak tree in Summer, even if its identity puzzles them (and older folk) in Winter. Show how, once the tiny seed has been planted in the garden of Nature, the stored-up energy within the hard covering begins to assert itself; how, in a word, it responds to stimulus. Information can be given of the first stages of germination, of the chemical action of the soil, and then, when the seedling plant appears above ground, the methods that are adopted by the tiny wildling for pushing its way through the soil without being injured. Many, if not most, plants have a wonderful way of producing a living green dagger to enable them to do this successfully, and, once *the idea* lays hold of one's pupils, they, on their part, will begin to search on their own account, and many are the things they themselves will discover in which they will very naturally take an especial pride. Encourage them to do this, and, although an object may be quite commonplace, do not tell them so, as a word of encouragement when one is young goes a mighty long way, as we who are now grown up know full well. The life-giving influence of the



sun, the action of the rain, snow, and frost, the chemical agents in Mother Earth, may all be dealt with in quite a simple way, but it will be as well to point out also that there is something beyond what we grown-ups call protoplasmic force, namely, the magic and mystery of the *producer* of the thing called *Life*. Then follow on with the story of the seedling. If it is an acorn that is being studied, relate the early struggles for existence of the tiny sapling, how it manages to obtain for itself a place in the great world of life. Let it be fully realised how patient and persevering plants are. They are content to build up their various parts, little by little, step by step. Time is of vast importance to them, and the perseverance they display may well serve as an object-lesson of how we ourselves may, by diligence and ambition, contrive to become stronger and better as the years roll by.

Get to know these wild and garden treasures for yourselves. Experience is a wise foster-parent, and one never knows how useful such may prove when coming into contact with others desirous of learning, and anxious to know. The child interested in Nature lore simply yearns for information pleasantly imparted, and there is no telling what vision may be conjured up which will, perchance, mature in after-life. The late Lord Avebury first became attracted, as a boy, to the wonderful life story of the common White Dead Nettle, which grows in most country districts, and blossoms almost throughout the whole year. There is no telling what magnetic influence that first sight of the wayside flower had upon young Lubbock's life, comparable, if you will, with the sunset that Alexander Irvine witnessed, as I have already related. In the one case it was something infinitely



FIG. 14.—WHITE DEAD NETTLE.



small, in the other it was the vast expanse of the setting sun that produced such magnificent results.

Read poetry and prose about Nature to the young folk, and, better still, let *them* read it aloud in class or home. They like and appreciate poetry, and poetry is a good tonic for the soul. Sir Robert Ball has written that a whole life-time devoted to the study of the common Daisy would be insufficient to reveal all the mysteries of its life. How true a statement this is coming from a man of world-wide fame, whose illuminating discourses upon the wonders of the Heavens have charmed so many people within the last decade. This great astronomer, this lovable man, has passed hence, but his life's work, and, what is equally important, his influence for good, remain behind.



FIG. 15.—“DAISIES ARE—DAISIES.”

I close with a beautiful quotation from Algernon Blackwood's "The Extra Day," as showing what inspiring thoughts such a common plant as the Daisy may bring forth. On page after page of this book one may find some intimation of immortality, some material fact heightened into a symbol by the imagination that plays about it, or transfigures it in the medium of the child's mind. Blackwood writes thus :—

“No flowers lie closer to the soil, or bring the smell of earth more sweetly to the mind ; upon the lips and cheeks they are soft as a kitten's fur, and lie against the skin closer than tired eyelids. They are the common people of the flower world, yet have, in virtue of that fact, the beauty and simplicity of the common people. They own a subdued and unostentatious

strength, are humble and ignored, are walked upon, unnoticed, rarely thought about, and never praised; they are cut off in early youth by mowing machines; yet their pain in fading is unreported, their little sufferings unsung. They cling to earth, and never aspire to climb, but they hold the sweetest dew, and nurse the tiniest little winds, imaginable. Their patience is divine. They are proud to be the carpet for all walking, running things, and in their universal service is their strength. The rain stays longer with them than with grander flowers, and the best sunlight goes to sleep among them in great pools of fragrant and delicious heat. . . . They know, it is said, the thoughts of Painted Ladies and Clouded Brimstones, as well as the intentions of the disappearing Golden Flies; why wind often runs close to the ground when the tree-tops are without a single breath; but, also, they know what is going on *below* the surface. They live, moreover, in every country of the globe, and their system of intercommunication is so perfect that even birds and flying things can learn from it. They prove their breeding by their perfect taste in dress, the well-bred ever being inconspicuous; and their simplicity conceals enormous, undecipherable wonder. One Daisy out of doors is worth a hundred shelves of text-books in the house. . . . Daisies, in a word, are—Daisies.”



## CHAPTER IV

### RED-LETTER DAYS AMONG BIRDS

BIRDS having first attracted my youthful attention, they occupy pride of place among my natural history experiences. A continuous and loving study of the feathered population for a period of over thirty-seven years has proved one of the most pleasant and profitable of outdoor recreations, and, whilst I am now a field naturalist, intensely occupied in surveying everything that crosses my path, I make no secret of the fact that birds still make a strong appeal to my finer senses.

In the chapter that follows I have recorded my impressions of the songs of birds, so that I am relieved at this part of my story from relating my red-letter days so far as they concern the minstrelsy of my feathered companions of field and hedgerow.

Among birds, the Nuthatch is, as its name implies, a lover of nuts, and I have frequently watched this interesting arboreal species collecting nuts, and storing them up for Winter use. The Nuthatch is a small, orange-and-grey coloured bird, found in woods, parks, and large gardens. It is the owner of a bayonet-like bill, and, by means of this, it is well able to drill a hole in the shell of the nut, and extract the kernel. For Winter use, it places the nuts in the hole of a tree, between branches, or in the crevices of bark. It seems to have a liking for favourite feeding-places, and a certain oak tree I have known for many years always contains a good supply of hazel nuts during the Winter, all of which are placed in the crevices of the bark by this industrious bird. A hole is ingeniously *drilled* in the hard, brown shell, the latter not being split asunder as one might suppose.

For many years I have studied in some detail the life story of the Cuckoo, and, as each Spring comes round, the reader will probably be aware of the unfailing regularity with which our newspapers report this harbinger's arrival upon our shores.

For years I have written and announced in public that these wonderful early Cuckoos should be regarded with grave suspicion,



and in my annual bird reports I have often drawn prominent attention to same.

The fact is that a Museum naturalist is not qualified to recognise sights and sounds out-of-doors in the wild greenwood, any more than the field naturalist is able to dissect a bird, or any other animal, and to name and piece together the various parts of which it is made up.

To recognise a bird by its voice, and upon the wing, requires years of patient and persevering toil, and I am not in the least surprised that a Harpenden labourer should have successfully lured the late Mr Richard Lydekker into the belief that he (the last-named) had heard the Cuckoo as early as February in the year 1913.

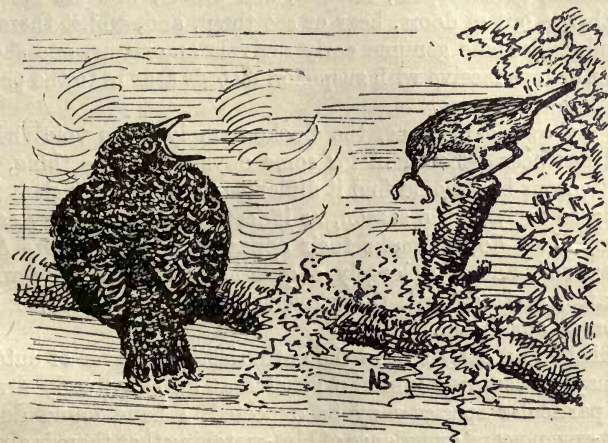


FIG. 16.—MEADOW PIPIT AND YOUNG CUCKOO.

Why Mr Lydekker should have sent a hasty note chronicling the "fact" to the Press, without making further observation and inquiry, I do not know. If he had stayed his hand for a few days, perchance the secret of the February Cuckoo would have leaked out!

I can well understand the desire on the part of any recognised authority to let the ornithological world know of the appearance of *Cuculus canorus* in the foggy days of February fill-the-dyke, but surely before such was chronicled it would have been advisable (as it afterwards proved) to make further inquiries.

The pity of it is that other scientists, taking Mr Lydekker at

his word, fell into the trap, and, as a contemporary very pertinently says : " Learned persons have written learnedly, and scientific bodies have discussed scientifically (to the utter demoralisation of Gilbert White, Markwick, and the rest of the accepted naturalists), the *raison d'être* of the Harpenden Cuckoo. And Mr King, the labourer, has been doing it all the time ! "

I always regard these early records of our feathered harbingers with suspicion, for the simple reason that those of us whose pleasure it is to chronicle the arrival of Spring, Summer, Autumn, and Winter migrant birds, almost invariably fail to note these phenomenal appearances. But Tom, Dick and Harry, year after year, with unfailing regularity, record the arrival of the Cuckoo, the Swallow, the Nightingale, and other birds long before field naturalists, gamekeepers, farmers, and others, who are more or less always out of doors, hear or see them, and, whilst there are undoubtedly some genuine early arrivals among us, one should almost always receive with suspicion records sent in to the papers by unknown persons.

In my own experience, the Cuckoo rarely gives voice before April has been ushered in for some days. For one thing, this insectivorous bird would find it difficult to obtain a sufficient food supply so early in the season, as it feeds chiefly on hairy caterpillars, which do not make their appearance much before April has arrived, and it is largely a question of food supply which regulates, and controls, the movements of these Summer bird visitors to our shores.

Whilst in an early season the enthusiastic observer of outdoor life may be tempted into the belief that an extra early arrival of a particular species may be expected, I have found during thirty-seven years' experience of bird-watching that there is almost always a distinct lull before our Summer migrants appear among us, even if the season is congenial and ready for their coming. As a matter of fact, our migratory birds do not vary to any great extent in the date of arrival upon our shores, as my own and other bird calendars amply demonstrate. In 1902 I conducted an extensive campaign in all parts of the British Isles as to the dates of arrival of our Summer bird migrants (some forty species in all), and, so far as concerns the subject of these notes, the Cuckoo, April was the earliest time when it made its welcome appearance.

In its babyhood the young Cuckoo has caused me much interest, both in and out of the nest in which it was born. In



May 1905 I had the honour of exhibiting a series of photos before the Royal Society. The *Daily News* headline the following day read: "Scientists at Play. The Whirl of the Atoms . . . Crimes of the Baby Cuckoo," whilst the *Daily Graphic* had: "Science at Burlington House. Royal Society's Soiree. The Fate of Baby Bunting." I have watched the solicitous Meadow Pipit on the Northern moorlands feeding its foster-child, and wondered many times why so much patience and parental affection should be exercised by another species of bird upon such a callous Philistine as the young Cuckoo is known to be. When it is out of the nest, lazily perched on a neighbouring tree branch, it persistently cries aloud for food, and, like *Oliver Twist*, is always asking for more. As it increases in size, as a result of the cargoes of hairy larvæ that are delivered, the small foster parents, no larger than Sparrows, find it difficult to reach the gaping orifice, and the illustration (Fig. 17) shows the Meadow Pipit actually perched on the "shoulder" of its ungainly charge, in its untiring efforts to satisfy the voracious cravings of the feathered parasite Nature has entrusted to its care.

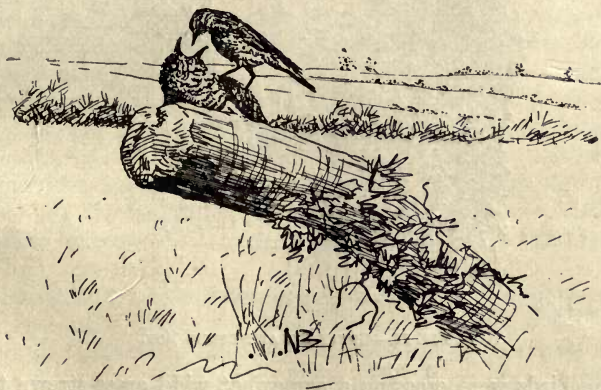


FIG. 17.—HIDDEN DEPTHS.

The various species of Titmice in North Hertfordshire have had a wonderful time this Spring and Summer (1917), and there is little doubt, I think, that the two hundred nesting boxes which have been erected at Letchworth, are partly responsible.

Four nesting-boxes I had under observation contained no less than fifty-three young birds, an average of thirteen per nest!



In view of the foregoing, I was somewhat prepared for the information recently given to me by a gamekeeper of my acquaintance. One day he counted a mixed flock of forty-five Blue and Long-tailed Tits, but a few days afterwards even this respectable assemblage of feathered folk was hopelessly eclipsed by the appearance of a flock of eighty-seven of these birds, evidently made up of troops of family parties. The two species represented were identical with those seen a few days previous, and as each individual bird flew directly over the keeper's head, as he was seated in his hut, there is no doubt whatever as to the accuracy of this information.



FIG. 18.—GREAT TIT AT NESTING BOX.

The birds were crossing a somewhat wide grass-strewn track, and alighted in a row of beech trees so as to commence foraging for insect food.

The Long-tailed Tit does not, of course, take possession of a nesting box, as it always makes an exposed nest, and is a much better architect than any of its cousins, building a wonderful oval and arched-in homestead of moss, lichen, grass, and a profusion of feathers. Over two thousand feathers have been used in the construction of one nest!

The Blue, Coal, and Great Tits are, however, regular tenants of our nesting boxes, though, truth to tell, the House Sparrow often fights the Tit for possession, and frequently wins the day. When examining over fifty nesting boxes during May, I found in several instances a Tit's nest at the base of the nesting box, with a House Sparrow's untidy structure on top, this indicating that the Tits were undoubtedly the first tenants, but that they had been ousted by the Sparrows.

In addition to providing suitable sites for hole-nesting birds, the erection, and subsequent examination, of these bird homes supplies a good deal of information which would not otherwise be acquired. For instance, I found, both in 1911 and 1912, that the Tree Sparrow was a much commoner bird in North Hertfordshire than one would suppose. I have recently examined over thirty nests of this useful bird, thus proving its presence among us. Few people are able to distinguish the Tree Sparrow from the House Sparrow, and this is unfortunate, as the misdeeds of the latter cannot be laid at the door of the former. The Tree Sparrow feeds almost exclusively upon an insect diet, and is an undoubted friend of the tiller of the soil.

The Tree Sparrow, it should be remembered, has a chocolate-coloured head, whereas that of the House Sparrow is ash-coloured. The first-named also has a double white bar upon the wing. An examination of the nests built at Letchworth has revealed the fact that the House Sparrow invariably arches over its untidy structure, but the Tree Sparrow does not do this, neither does it construct such an untidy home. Another point of interest concerning the insectivorous species is that, as a rule, there is a clutch of five eggs, among which there is always one light variety, and four very dark ones.

Passing along Hermitage Road, Hitchin, a few days ago, I was pleasantly surprised to hear the two notes of the Chiff-Chaff constantly repeated. To listen to the notes of this little herald of the Spring, surrounded by houses and shops, was, to say the least, a delightful experience, and goes to prove the attraction of trees and bushes, and a large garden.

I am told that the elusive Hawfinch regularly nests somewhere in the same vicinity every year, and this is a good deal more remarkable than the presence of the Chiff-Chaff, for the Hawfinch is a very shy and recluse bird, and one of the best feathered scouts (with the exception of the Wryneck) with which I am acquainted.



So that if, as I am informed by a reliable authority, Hitchin has to mourn the loss of some of its famous Nightingales, compensation is forthcoming in the presence of the Chiff-Chaff and Hawfinch, to say nothing of the Rooks and Jackdaws, which are such a feature of the bird-life of the old market town.

As soon as the pappus-producing plants have gone to seed, then, sure enough, the Linnets make a raid upon them, and consume large quantities of the seeds. There is no doubt whatever that this well-known Finch is a most useful bird, and it is fortunate for those who till the soil that such a beneficial species should be so plentiful in our midst.

Country people still persist in calling the Common Linnet the Brown Linnet, and the Greenfinch the Green Linnet, and there is some amount of reason for them doing so. Both birds are, to a great extent, seed eaters, belonging, of course, to the Finches, which are hard-billed, and, therefore, well adapted for a diet of seeds. The Greenfinch is the more voracious bird of the two, and is particularly fond of the oily seeds of the sunflower. If only one head is permitted to remain in a garden in the Autumn, the Greenfinch will be a regular visitor, and, whilst usually a shy bird, it may, under such conditions, be watched at fairly close quarters.

When the Yellow Bunting commences to utter its simple little strain again, Nature is "marking time," as it were, previous to the great season of fruiting, and it is pleasant to listen to the Yellow Yeorling, as this bird is called in Scotland, uttering so persistently its oft-repeated ditty of :

A little bit of bread and no cheese !

Its cousin, the Corn Bunting, also gives voice late in the year, but it is a poor effort, even compared with the plaintive strain of the Yellow Bunting. The Corn Bunting sings a muddled medley of notes which strike the ear somewhat harshly, although not altogether unpleasant. It is a wheezy, long-drawn-out song, which cannot fail to arrest attention in districts that the bird frequents.

When flying, the Corn Bunting carries its legs hanging low down, producing a curious effect when seen for the first time. It is a common bird in North Hertfordshire, and I have counted as many as a dozen to twenty male birds singing within a mile or so. Yet, curious to relate, in Mid-Herts, around my old home at St Albans, I very rarely came across the Corn Bunting, and my first acquaintance with it was made years ago in Norfolk.



When I came to reside at Letchworth I was pleased to renew acquaintance with it, and it is nowadays almost constantly within earshot.



FIG. 19.—NEST AND EGGS OF MOORHEN.

A valued correspondent, whose modesty is such that he does not wish me to disclose his identity, writes as follows: "I thought perhaps a note on the Moorhen might be of interest, particularly as they can be observed so much just now. How seldom one is able to watch the Moorhen attending to her duties of incubation! I suppose as the nest, eggs, and surroundings harmonise nicely, and are less easily seen than the bird, she considers it safer to glide into the water at the first sight, or sound, of danger, but I wondered if one I saw the other day would do the same, as the nest was in a whitethorn bush several feet above water. On going within a few feet of the nest, I found her sitting, and only on making a still closer inspection did she go off with a flutter and splash, which the bird evidently knew must attract my attention. I have watched a Moorcock feeding his chicks daily, picking little bits off the water and handing (or beaking) it round, but have not once seen the hen bird with them. They are two, or three, weeks old. Would she be nesting again so soon, or does she shirk parental duties?"

These interesting notes are most acceptable, and I also appreciate the use of the word Moorcock for the male bird. If the female is Moorhen, surely the male must be Moorcock, in the same way as we use Peahen (female) and Peacock (male). The Moorhen does undoubtedly slip off her nest in a very unobtrusive way, and, although specimens of these birds that are kept on artificial sheets of water become fairly tame, when nesting, it is true, as my correspondent states, that this solicitous bird is difficult to get a good sight of. I think there is no question that male and female both help in the work of incubation, indeed, if I remember rightly, one of the bird films I use at my Kinema Lectures proves this. Here we have another instance of the value of the kinematograph in regard to the study of wild creatures. I have certainly seen both the Moorhen and Moorcock swimming about in company with their chicks on many occasions, and the latter are very pretty when in infancy, being mere balls of sooty black down. They are very active for babies, and Mr Shirley has recorded that a young Waterhen (still another familiar name for this familiar bird) a day old is incomparably cleverer than a year old infant! The male Wild Duck does shirk parental duties as, while the female is incubating her eggs, the male goes into hiding for the purpose of undergoing the first of his two moults. The duck, therefore, has all the cares of parentage thrust upon her. When the drake returns to his mate, he has, wonderful to relate, assumed the attire of his wife, having lost the handsome dress we usually associate with him. Later on, he moults again, and in the Autumn comes forth in all the splendour of male attire.

I have spent many happy hours watching the Spotted Flycatcher adroitly suspending itself in mid-air snapping at unwary insects, and I have witnessed more times than I can recount the parent birds teaching their young the elements of their profession. No other bird is so adroit at fly-catching, and I do not know of another which works as hard to earn its living. This soberly-clad, but eminently useful, bird has been a favourite of mine since early days, and its coming in Spring, and departure in Autumn, is linked up with old-world gardens, orchards, quiet stretches of sportive woodland, and shady nooks, old associations which go to make bird-watching so enchanting. It is not the mere first chronicling of this bird, or that, which stimulates enthusiasm and careful study, but to be able to find the same species in the same place, year by year, brings to the bird-lover memories



of bygone days, each memory helping to weld together the links of a chain, which, though never to be completed in the lifetime of an individual, is one long succession of fragrant recollections.

The Goldfinch has appealed strongly to me in later years, especially since it was threatened with extinction. I was pleased to have a hand in its better protection and preservation in my native shire, and notice on many excursions now how its numbers have perceptibly increased. The active and engaging habits of this scarlet-headed, golden-winged Finch must surely win the heart of every bird-lover, and the merry twitter that is uttered by such a jocund fellow pleases our sense of sound as the bird's efforts to extract the seed from a silky thistle-head does our sense of sight.



FIG. 20.—YOUNG FLYCATCHERS.

Even in daytime I have, on several occasions, had opportunities for studying at close quarters the ghostly form of the Barn Owl, and noted with interest its trim attire and noiseless flight. On one occasion I found the mangled remains of one of these birds upon a keeper's gibbet, and, whilst mourning the decease of so inoffensive a creature, I perceived in the tall laurel bush overhead its living mate, evidently keeping vigil over the body of its dead consort.

Fields and field-paths have always lured me from the noisy, dust-laden, and motor-haunted highway, and, in the depth of



Winter, I have trudged many miles across country seeking for knowledge of the outdoor world. Larks have risen from beneath my feet as they cautiously contrived to take protective advantage of their environment; close-squatting Snipe have stayed until the last moment before taking wing; trim Wagtails have moved from clod to clod "tising" as they proceeded, and flirting their tails for very joy of life. Even the elegant Yellow Wagtail—a Summer visitor—has fed within a few feet of my resting place in a damp meadow, where flaring Marsh Marigolds and Shakespeare's Cuckoo flowers all silver-white, painted the green grass with unfeigned delight.



FIG. 21.—LAPWING IN FLIGHT.

Lapwings have screamed and tumbled, remarkable feathered acrobats in the air, and, at times, I have almost held my breath for fear the bold aerial adventurer should suddenly lose its equilibrium and dash towards the earth, stunned as a result of its remarkable evolutions.

One red-letter day in a secluded copse near Alban's City will always remain with me, for, within an hour, I saw and heard all three British Woodpeckers. The laughter-like notes of the handsome Green fellow take one into the heart of rural England, but I like best the drummer-like vibrations of the Lesser Spotted, happy-go-lucky bird-sprite that he is. He drums and sings to

me long before Spring has summoned the uprising of the sap, and makes the naked woods re-echo with high-pitched vocalisations. The shyest and rarest species of all, the Great Spotted, has also crossed my path, traversing, as I watched with feverish excitement, the bole of a forest monarch, insect-hunting all the time. But for sheer impudence or consciousness of protection—I know not which—one of these birds which visited a Scarborough garden is hard to beat. The bird paid regular excursions to a small back garden, and became so tame and confiding that it bathed in a porcelain dish, as does the homely Robin to-day in an earthenware vessel near the open casement of my own dining-room.



FIG. 22.—GREAT SPOTTED WOODPECKER.

One day a young boy of my acquaintance expressed a wish to see "the big black and white bird," and, to satisfy his desire, the youngster was taken into the garden about the time of day when a visit from the Woodpecker was expected.

In almost less time than it takes to tell the story, the Woodpecker arrived at its destination, and landed straight on the boy's head as our artist has faithfully depicted. The boy turned round, having observed the bird flying towards him, to see



whither it had gone, for he did not realise that the bold woodland visitor was sedately perched on his own person, signalling its bravado by vociferously uttering its wild, exultant cry !



FIG. 23.—WOODPECKER ON BOY'S HEAD.

The Chaffinch is a prominent country bird. It is comparatively tame and confiding, although it does not often come into our gardens. It has a pleasant walking gait, and, when flying, the white bars upon the wing are very conspicuous. A year ago I watched one of these Finches practising the difficult art of catching insects upon the wing, after the manner of a Fly-catcher. Its efforts were ludicrous in the extreme, and so clumsy were its movements that, on one occasion, it turned a series of complete somersaults in the air, having lost its balance, and did not regain self-control until it had almost reached the ground. I did not think any more of this incident until May of this year, when, to my surprise, I watched two Chaffinches very cleverly fly-catching in the same place as the bird that I had located twelve months previous. The improvement made was most



marked, for, I doubt not, one of these two was the same bird as I had observed a year ago. I wonder if the Chaffinch is developing more fondness for an insect diet, and whether, in course of time, it will be as adept at catching its prey as the Flycatcher ?

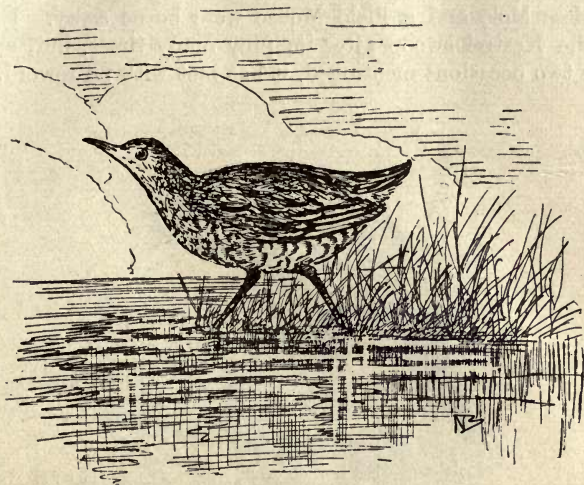


FIG. 24.—WATER RAIL.

I have a note as to the Water Rail which is of interest. This bird resorts to marshy surroundings, and, as a rule, is of shy disposition, stealthily hiding itself among aquatic herbage. In view of this it is interesting to reflect that, at least, three specimens have been brought to me at Letchworth Museum which were killed by flying against telegraph wires *in almost the same place*. The point arises, does this particular spot indicate one of the lines of flight of this species, and is it not worthy of note that such a ground-loving bird should migrate under cover of darkness, at such a height as to just clear any housetops which come within its range ? Isolated instances of birds appearing in a certain place are, of themselves, of importance, but when a *series* of observations are made possible concerning the same species, under the same conditions, and in the same place, one is then commencing to open up several interesting points which gives to bird study in the field so great a charm.

In Spring and Autumn the Kestrel Hawk, or Windhover, is of daily occurrence within sight of my study window, and I never

tire of watching this sky-pilot hovering almost motionless in the air. It always faces the wind, like the gleeful Lark, and, if the result of my constant observation is any guide, the bird rarely seems to come to ground for the purpose of securing food. Twice only have I seen it successfully swoop earthwards, when a luckless Mole and a Field Mouse were borne away. I have seen the Kestrel swoop after its prey many times, but, except on the two occasions mentioned, it has met with no reward.



FIG. 25.—KESTREL SCOLDING SPARROWS.

As the Kestrel hovers, it is a study of itself in a bird's mastery over the air. Its clean-cut wings are spread wide apart, the head is held well forward in a sloping position, and the large fan-like tail admirably serves the purpose of balancer and rudder.

One day I watched a crowd of noisy Sparrows disputing the possession of some pieces of bread which had been thrown down for them near an old post. The reader will be acquainted with the pugnacity of the Sparrow when engaged in conflict, especially when fierce pairing combats ensue in Spring. At such a time, a small company of the noisy rascals will dash headlong across one's path, and almost collide with any object in their direct route, so intent are the birds on fighting to a successful issue. On the day mentioned, whilst the Sparrows were tugging at the crusts of bread, mindful of the good feed before them, but unmindful of the danger that threatened from above, a Kestrel



appeared overhead, attracted by the quarrelling, and, perceiving an opportunity of closer investigation, it dashed down, landed on the post as is here shown (Fig. 25), and commenced scolding the Sparrows because they, seeing the Hawk at close quarters, had suddenly taken flight rather than be made prisoners. The incident was full of comedy, one of those humorous asides one may note in birdland when cultivating a watchful eye.



FIG. 26.—COMMON REDSTART.

On another occasion I had further evidence of the law of attraction, and counter-attraction, when two Mistle Thrushes were mobbing a Tawny Owl. The former were making a fearful din, rovers that they are, and thus attracted a Kestrel to the scene. The bird of prey's appearance meant the driving away of the Thrushes when pursued by the Kestrel, the Owl being thus left alone to blink (and think) over the episode in peace.

On two occasions near at home I have experienced red-letter days among birds when brought into contact with the Black Redstart. A female of this species appeared in my garden a few years ago, and, in the early Spring of 1915, I watched a fine male in the garden of one of my juvenile pupils, who, to her



credit, had correctly identified the bird before inviting me to stalk it. Unlike the somewhat local Common Redstart, which is a Summer visitor, the Black Redstart is a Winter migrant which may be expected in Autumn. It flirts its flame-coloured tail in the same way as its relative, and, when upon the ground, possesses the habit of a Wagtail, searching for food in a most engaging way among upturned clods of earth.



FIG. 27.—JAY.

Probably the greatest sight I have ever witnessed among birds was at Wells, Norfolk, in December 1909, when I saw a huge flock of between three and four thousand Pink-Footed Geese in flight at one time. I shall not readily forget the scene as the wary birds made out to sea from the uplands, where they had been feeding during the day. As they uttered their loud “honk, honk” it seemed as if a fleet of motor cars, or aeroplanes sounding weird motor-horns, was careering through the air. The din, mingled with the North Sea breakers dashing upon the lonely shore, was indescribable, a red-letter day indeed for an inland

student of bird life such as myself, and one well worth travelling many miles to see.

One of the most artful birds of my acquaintance is the Jay, and, in spite of his being the worst poacher in the district, he is worth tolerating. In Springtime, before domestic cares have entered into his existence, he hunts all day long for the nests of Blackbird and Thrush, and woe betide any eggs or young that are espied. A pair of Jays will do more harm in a season than all the boys of the parish, but, in spite of this, I could not agree



FIG. 28.—ROOK.

to the bird's destruction. A troop of eight appeared in my garden one day when the peas were ripe, and they made sad havoc among them. Even then, I was more excited at the advent of such a conspicuous family gathering than I was at the loss of my peas. I love to listen to the harsh alarm cry of this sentinel of wood and copse, and to watch its airy flight from bush to bush. Sometimes I hear it going through a remarkable succession of hilarious notes, as did a Cuckoo yesterday, and, even in Mid-Winter, I have witnessed a male Jay feeding its mate, for what reason I have never yet been able to discover.

Of Rooks I have many tales to tell. Not far from my home there is a large building with a number of chimneys. Here for



several years past a number of pairs of these sagacious birds have actually built their nests *in the chimneys*. When I first heard of the matter, I was inclined to conjecture that some mistake had been made in identity, and that the fast-increasing Jackdaw was the culprit. A personal inspection of two nests, however, revealed the fact that the birds *were* Rooks, and there is now exhibited, at Letchworth Museum, one of these chimney nests containing a clutch of five eggs.



FIG. 29.—YOUNG LONG-EARED OWLS.

Before the great blizzard of March 28th, 1916, it was reported to me that some Rooks that had nested at a Rookery which had been in existence for several generations, made an inspection of their old nest trees, and then went away. Later, the blizzard came, and some of the nest trees were blown down. Although two seasons have gone by, the birds have not yet returned to their old haunt, indeed, they have joined the inhabitants of an adjoining Rookery. These latter birds—and the new-comers— invariably destroy their nests each year. This is most unusual, as mentioned in a later chapter, "Some Bird Problems."

One more Rook incident must suffice. Some of these birds were in the habit of coming to a friend's lawn to drink out of a pan of water. One day the receptacle containing the water was changed for a deeper vessel. The Rooks came to drink as usual, but, after carrying out a close inspection of the second pan of



water, decided that it was impossible for them to reach it successfully. Thereupon two of the wary creatures tugged at a child's doll that happened to be near by; they dragged it towards the pan, and then, one by one, mounted the doll, and thus quenched their thirst more easily. Was this a case of instinct or reason?

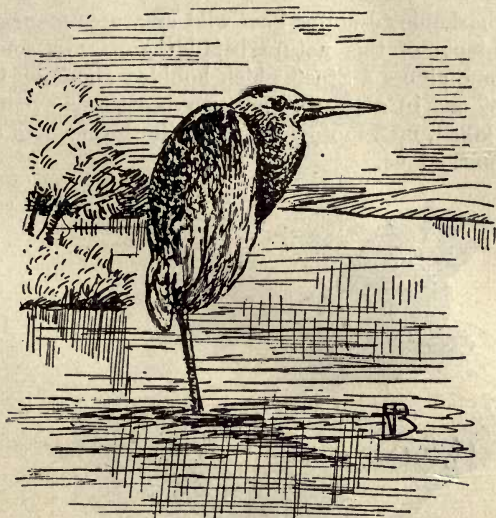


FIG. 30.—HERON.

Young Long-eared Owls are an engaging sight when several of them are discovered out of the nest perched in a row upon the branch of a tree (Fig. 29). One of these birds that came to grief by falling out of its nest in a tall Poplar tree, was reared by a lady friend of mine who matrons a Bird hospital for the halt, blind, and maimed. The young Owl, after careful nursing, recovered from its fall, and, because of its wisdom, was duly christened "Solomon."

When sailing down Breydon Water in Norfolk I have, of an evening, counted as many as fifty Herons standing knee-deep in the ooze, watching intently for any likely prey. At times, so sphinx-like are these birds, that one can hardly decide whether they are guide posts, or living things. With us in Hertfordshire the Heron is a comparatively uncommon species, and, so far as I know, it has only nested on one solitary occasion within recent years.

Where trout are reared the Heron, Kingfisher, and Otter are sadly destructive, and I have had several specimens of these three animals through my hands within the last few years. One Heron that was caught in a trap lost the whole of one foot, which, inspection proved, was already minus a toe, evidence of previous "conviction."

It is remarkable to notice how wild creatures manage to exist when accidents of this nature befall them. For some time I used to come across a Stoat which hobbled about on three legs, having lost one in a trap. The poor beast was eventually run over, and killed, by a motor car, when the former was crossing a narrow country lane.

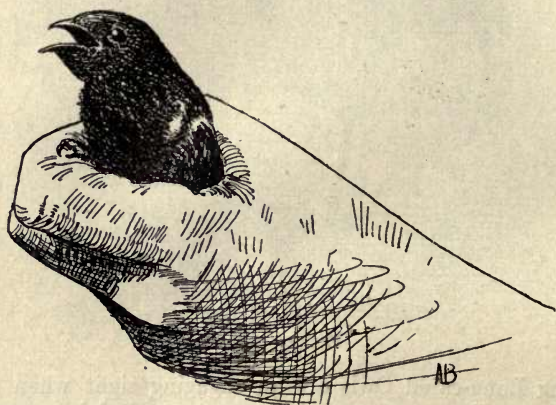


FIG. 31.—YOUNG SWIFT.

The other day I was shown a pet Canary which has lived happily for several years with one eye and one leg, and my sister's garden has been visited for two or three Winter's by a one-legged Blue Tit, which balances its pert little body quite cleverly on the coconut husk put out for the purpose of attracting these feathered acrobats.

Colonies of birds are always interesting, and two instances occur to me out of several which my notebook brings to mind. At St Pauls Walden Bury, Hertfordshire, the residence of my friend Lord Strathmore, I counted over eighty nests of the House Martin, surely a record for one homestead, and in one large Elm tree near Baldock there are, season after season, no less than sixty Rooks' nests.



I have known the Swallow to build an exposed nest in the branches of a Horse Chestnut tree, quite an unusual site, and in 1915 I received details of a pair of these familiar birds which completed a nest at Hitchin *within twenty-four hours of their arrival.*



FIG. 32.—AFRICAN CROWNED CRANE.

The Swift is, to a great extent, a mysterious aerial voyager. Except when rushing through the air at breakneck speed, screaming as it goes, it does not lend itself to close observation. The air is its natural element, and, if it chances to come to ground, it experiences difficulty in rising again, owing to the shortness of its legs, and its length of wing. It must have some eminence from which to throw itself, as it were, and, if a specimen is discovered, it should be held in the hand and then gently tossed into the air (see Fig. 31).

During the memorable Winter of 1916-17 many rare birds passed through my hands. One day I picked up a live Curlew sadly in need of sustenance. It lived for two hours before finally



succumbing. Gulls were close to my house almost daily, and our Winter visitors, the Fieldfares and Redwings, died in large numbers of starvation. Those birds that were able to brave the frost and snow were never seen to such advantage, at least during my lifetime. An African Crowned Crane (Fig. 32) was shot by a senseless idiot, who, in relating the incident to me, humorously remarked that, hearing a peculiar *noise*, he shot at and hit it, and a Mandarin Duck Drake likewise suffered the death penalty. Both these handsome specimens were undoubtedly birds that had escaped from some large sheet of water, driven from home, perchance, because of the Arctic conditions which prevailed.

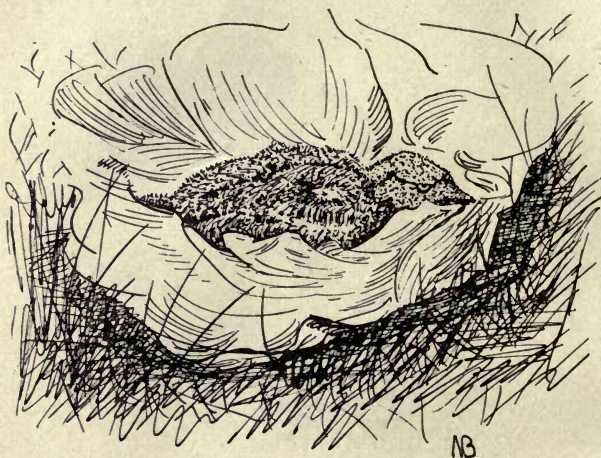


FIG. 33.—YOUNG STONE CURLEW.

I am fortunate enough to live in the vicinity of one of the few English haunts of the Stone Curlew, our largest Summer visitor from overseas. This species resorts to large open fields and wastes, where herbage is scanty, and bird life far less conspicuous than in the nearest country lane. It depends upon protection by running, and then squatting with outstretched neck. Remaining perfectly still, as rigid as the countless bleached flint stones so characteristic of its habitat, the bird is only discerned after careful stalking, so nearly does its mottled plumage harmonise with its surroundings. This habit of crouching low and remaining still, can be understood when one watches the alert parent, but I have proved that the young Stone Curlew, when only a

few hours old, also possesses the parental habit in a marked degree. A lustrous-eyed youngster of this species, which was not quick enough to escape my grasp, enabled me to carry out the experiment of placing it on a white handkerchief to see what would happen. The result is shown in Fig. 33, as the bird at once squatted and thus rendered itself motionless. This would have served the purpose in view if I had not taken the precaution to place the fledgling on a white background, the result being that,



FIG. 34.—YOUNG SPARROW HAWK.

whilst the experiment proved inherited tendency, the bird was unconscious of the fact that it was still plainly to be seen upon the artificial environment whereon I had placed it. Incidentally, it may be mentioned that another ground-nesting species, the Lapwing, does not take to squatting or skulking when disturbed, for the young one, even when only one hour old, resorts to running away as fast as its long little legs can carry it, and, if I had placed a baby Lapwing on my handkerchief, it would never have remained long enough for the photograph, from which the sketch was made, to be taken.

The young Sparrow Hawk is a ferocious personage to encounter



as its ancient lineage would lead one to suppose. A bold bird of prey, showing no mercy, and receiving little from gamekeepers and farmers, this Hawk follows its prey with great daring, even through the open window of a barn, or other building. As is usual among birds of prey, the female is much the larger of the two sexes. It is of rare occurrence for a whole nest to be completed by this much-molested species, as the disused, or usurped, homestead of a Jay, or other stick-constructor, is utilised, and added to. The eggs are handsomely blotched with splashes of rich red, and a comparison in size between the egg of this species and that of the Cuckoo (the latter being about the same stature as a female Sparrow Hawk), reveals the fact that, whereas the latter is only about the size of that of the House Sparrow, the egg of the Hawk is as large as a golf ball.

Birds, on occasions, exhibit strange divergence from the type, and this was manifest in the case of that restless inhabitant of our furze-laden commons and waste places, the Stonechat, which I once saw dangling a lizard in its beak. It is almost on a par with a Redbreast, which showed great cleverness in catching sticklebacks, and the amorous Turtle Dove, immortalised by the poets as gentle and felicitous, which I once witnessed strike at and actually kill a young Pheasant.

## CHAPTER V

### MY FAVOURITE SONG BIRDS

I AM a bird-*listener* as well as watcher. Perhaps the former is the more difficult accomplishment of the two, as it requires a musical ear, and an abundance of personal contact with birds, to obtain any real measure of success. I feel, too, as a result of my own experience, that to be able to tell a bird by its call, cry, or song (and especially the latter), affords more pleasure than even a close *sight* of the actual soloist. I do not wish to discount a bird's winning ways, its engaging habits, fascinating form, colour, and flight, but to emphasise that, whilst I am always *watching* birds, I am also constantly *listening* to them. Another point that should not be lost sight of is that, by cultivating one's ear, one is able to obtain a fund of quiet enjoyment from contact with birds at a time of year when the feathered race are hidden among a wealth of foliage, and their forms are thus more difficult to see.

During the English Summer, when we have among us the finest song birds in the whole world, the trained ear can detect *individual* bird-songsters, and one is thus able to participate in the great chorus of music which is produced on such a May morning as that on which I write.

The unmusical or unreceptive ear fails to respond to the various strains that are being uttered, to him (or her) the bird orchestra is strangely void of orderly concert, and the soloists themselves are lost in the remarkable outburst.

I stood this morning watching the chaplet of May, and as I fixed my gaze upon the milk-white bloom of a Blackthorn bush, now crowned with a billowy mass of flowers, and listened to the soul-inspiring chorus, I felt strangely alone with Nature in a wide, and, oftentimes, unthinking world. Above me the Tree Pipit soared and sang in never-ending rhapsody. It was in the old-loved spot where I look and listen for the same succession year by year. A Sedge Warbler chattered its jerky notes upon my right, a Willow Warbler uttered its sweet dulcet strain upon



my left, and a Greater Whitethroat danced his love-flight in mid-air, accompanied by his impetuous song, as if to attract attention. The Cuckoo seemed to act the part of vocal conductor of this bird orchestra, his two (and sometimes three) mellow notes keeping time, as it were, with the more brilliant efforts of its fellows. Larks in the meadow adjoining were singing at their best, the mournful ditty of a screaming Lapwing contrasted strangely with the sweeter renderings close at hand, and the

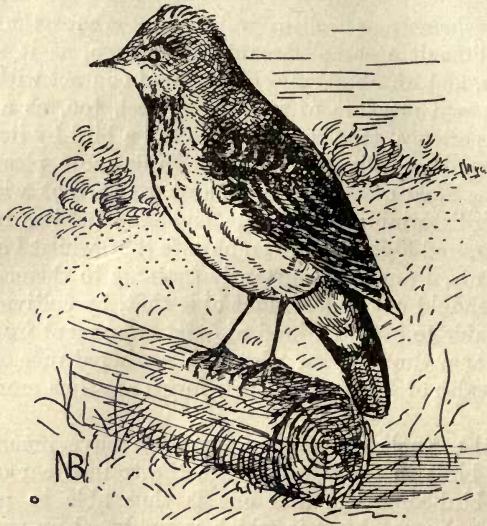


FIG. 35.—SPOTTED FLYCATCHER.

shrill song of a sprightly Chaffinch, with its pleasing cadenza, added a touch of musical gaiety to the glad morning air. In the deep recesses of a tangled thorn a Nightingale poured forth rich music from its instrumental throat, and a gay-clad Robin, not to be outdone by the Summer visitor, went one better than when his Autumn dirge is uttered almost alone, and gave of his super-song. "Chip, chop—Chip, chop," sounded as a delicate bugle-call from the tree-tops, telling me that the Chiff Chaff was there, and a Spotted Flycatcher, perhaps inspired by the wondrous melody of the morn, attempted a curious contribution such as I have never heard before. Although not a song bird, the incident pleased me so much that I have included a picture of this species by way of memento (Fig. 35).

I would strongly impress upon the reader desirous of knowing birds, and our Summer migrants in particular, the desirability of becoming intimately acquainted with their varied utterances. Real success will only come by constant practice and unlimited patience. It seems a hopeless task at first, but I have noticed how even young children, not yet in their teens, learn to recognise a few of the more familiar songs of birds, to the utter consternation of their less fortunate schoolmates, who regard the whole thing as hopeless confusion.

To write down even a bare list of favourite song birds is more difficult than I imagined at the outset, as I find, on reflection, that every note uttered makes a strong appeal to my sense of hearing, linking up, as it so often does, some old association of long ago. Naturally enough, my favourite song birds are those with whom, for the best part of the year, I am brought into daily contact. My house, situate on a pre-Roman road known as the Icknield Way, is bounded on the North side by a fine wooded area known as Norton Common.

With living fences to divide the gardens, the first garden city of Letchworth is a more pleasant place in which to reside than any other with which I am acquainted, and, although we are planting and planning for posterity, there is much present-day enjoyment in which all who will may participate.

Thus, I am more or less surrounded by bird-life all through the year, and my little garden, as I reveal at a later stage in my story (Chapter XV.), attracts an abundance of wild creatures, furred, feathered, and otherwise.

Perhaps I should give pride of place among my favourite song birds to a visitor from the far South, because, at the best season of the year, and under the happiest conditions, he pours out his little heart to me within earshot of my study the live-long day. This individual Blackcap I have come to recognise, after a life's experience among birds in the field, as the greatest musician of them all. One sees and hears certain birds during one's rambles under the best conditions, and this Blackcap, which rears its brood within sight of my homestead, is without doubt the most remarkable song bird to which I have ever been introduced. It is an inconspicuous species, delighting in thick brambles and thorns, and is dressed in a sober uniform of grey, with (in the male) a jet black head.

Let the reader try to imagine one individual bird which is able to utter in whole, or part, the songs of the Blackbird, Song



Thrush, Robin, Goldcrest, Linnet, Nightingale, Garden Warbler, Greater Whitethroat, Greenfinch, and Nuthatch, and he will have some idea of the wonderful powers possessed by this British Mocking Bird. If I had not listened for one whole day to the marvellous singing of this great feathered musician, I would not have believed it possible for an individual performer to possess, and go through, such a repertoire. He is singing as I write. Each moment he changes his note, now it is the mellifluous dirge of the Blackbird, now the shrill high-pitched love-call of the Nuthatch. Now he is imitating to perfection the song of the Thrush, now the needle-like notes of the Goldcrest; now the rich song of the Robin; now the scratchy, impetuous notes of the Greater Whitethroat; now the well-known hurried babble of the Linnet; now the characteristic notes of Philomel himself; now the fluty song of another prince of musicians, the Garden Warbler; now the rustic notes of the Greenfinch.

It is no idle fancy on my part, for let another observer continue the story. Charles Dixon writes in "Our Favourite Song Birds" thus: "The bird seems literally overflowing with music, and warbles almost continuously the livelong day. Of all the Warbler band the Blackcap, to our mind, is the most splendid singer, and his melody is absolutely unrivalled. The notes, clear and flute-like, flow forth in a perfect torrent of wild, sweet melody, full of the most pleasing variations, so loudly uttered that the listener is often led to think that a much larger and more powerful singer is producing them. . . . The modulations of the song are exquisite. First, it may be, the song is heard in a low key, as if the author of it were a hundred yards away; then gradually it becomes louder and louder, giving us the impression that the bird is coming nearer, until finally we are greeted with a torrent of sound, as if Blackbird, Song Thrush, Wren, Robin, and Warbler were all singing in concert. But the Blackcap has been stationary all the time; it may be not half a dozen yards away, and in amazement we learn that this wondrous music, now low and soft, and now rich and loud and full, has issued from the same little throat at one unchanging distance." Thus writes Charles Dixon and where I have failed to describe he has splendidly succeeded. That Dixon has heard the Blackcap sing, as I have done, is certain.

Later in the year, after temporary cessation, the Blackcap commences to entertain us again with its rich notes, and when there is deathlike stillness becoming more daily apparent, one

notices the sweet, dulcet strains of the bird to great advantage. In the full gush of Spring's birdland choir, the Blackcap's contribution is almost lost, except to the trained ear of the ornithologist, but at Midsummer the little copse, or secluded wood, resounds with the voice of the bird under notice, and makes such an appeal that the most indifferent listener is bound to make some remark when the lyrical notes strike upon the ear.

Here, again, we have an extremely shy bird, which is always on the move. In the heyday of Summer it seems to have a preference for the billowy masses of elder blossom, among which it delights to wander. Perchance, it is a good hunting ground for insects of various kinds, and upon these the Blackcap largely feeds. Sometimes, it will come into our gardens, and take a little soft fruit, but it does not do any appreciable damage, and should be encouraged at all times.

The first Blackcap I saw this year was feeding upon the fast ripening berries of the ivy, of which it is very fond, and, if the reader desires to locate this bird during the first days of its arrival upon our shores, he cannot do better than pay attention to any ivy-laden district, where, sure enough, it will soon be observed.

The young having been safely reared, the parent Blackcaps are free to roam about during the late Summer and early Autumn, happy and contented. Every now and again the male bird sings a few rich, mellow notes, as if to remind us that it will prolong its stay until the luscious berries of the elder are ripened by the August sun. Then it will have a rare feast from the elder-berries, if these latter are not all gobbled up by the ravenous Starlings. Soon afterwards it commences its return southern journey over land and sea, and does not occur with us again until the ivy berries are blackened, ready to receive it the following Spring. Thus do the hands of Nature's clock go round!

Next to the Blackcap, I should place the Skylark among my favourite song birds, and that for several reasons. This far-famed minstrel of the air, "pearl of the feathered race," as I christened it in the little poem recited in my opening chapter, sings its happy and unfettered melody for several months out of the twelve, and at a time when other feathered warblers are leagues away in a sunnier clime. He sings, does this brown bird of happyland, in all weathers, full of abundant hope, even in the rigours of an Arctic February, or March-many-weathers, of the Spring that is to be. Of gleeful disposition, unquenchable optimism, abundant energy, possessing a repertoire unchallenged,



the Lark has for long endeared itself to all those having music within their souls. The very manner of utterance, as the bird is suspended in mid-air, sing, sing, singing, appeals strongly to one's senses of vivid imagination and stern reality, a refined melody full of lyrical brilliancy, sparkling with radiance and romance. It would ill-become me to attempt an analysed description of the song of the Lark. Its praises have been sung in unforgettable verse by Hogg, Mackay, Meredith, Montgomery, Shelley, Wordsworth, and others, and will always remain a part of the fabric of our national existence. The fields and meadows would be denuded of one of their greatest charms if our outdoor pilgrimages were unaccompanied by Lark music from above. Even the Daisies open wide their ray florets as if to catch not only the life-giving rays of the sun, but also, if Francé is right as to plants having souls, a faint earth-echo of the lyrics from the clouds.

A resident British bird, the Lark is with us throughout the year, or, at least, I should say its species is thus represented, so also is the Thrush, my next favourite musician. I am a lover of what is best described as the broken melody of the Mistle Thrush, as this bird of gipsy habits sings loud and long from the naked branches of the tallest tree of the parish in the early days of the year, but it bears no comparison with the extraordinary variety and richness of the notes of its more familiar cousin, the Song Thrush, whose vocabulary is little short of amazing. Descriptions of birds' songs, calls, and cries are, at best, misleading and disappointing, and no written account can satisfy either reader or scribe. The pity of it is that, even the Thrush's supreme effort to welcome the world of Spring with its exultant notes, is so little appreciated by the multitude. I listen instinctively to the great outburst of Thrush music early in the year, and my heart is gladdened at Spring's awakening, or I hearken to these birds singing in harmonious chorus towards sundown. The soloist, or the choir, captivate my finer feelings, and I stand spellbound. But I find myself alone, one of the select few among my fellows who show any desire to gain inspiration and knowledge by quiet communion with these feathered companions of hedgerow, field, and copse. Why is this? It may be that, after all, the new renaissance of Nature Study is near at hand, and that those of us who have for years devoted close study to the operations of outdoor life, will realise the fruit of our loving labour sooner than we anticipate. Among the younger generation,

as I have already indicated in Chapter III, there is ground for abundant hope, it is among the grown-ups that indifference is more manifest. But, perhaps, after all, one's influence reaches constituencies of which one is unconscious, and the lack of leisure and opportunity on the part of the masses, who are often badly housed and environed, must be taken into account. They probably know nothing of the palpitating joy of existence. Yet the Thrush's tuneful lay is one of hope and encouragement, and, so long as this great musician remains to cheer us, there will be some, at least, to listen whose respondent chords will vibrate with unfeigned delight.



FIG. 36.—NIGHTINGALE.

I have written only of the Thrush's wonderful power *as a song bird*, but it has a warm place in my affections because it rears its spotted chicks within hail of my window, and bathes in the pan of water put out for the birds to drink. I admire its fine symmetry, its stately mien, and measured gait. To lose the Thrush from my everyday existence, would be a bereavement I do not wish to face, though I may, as a result of this statement, risk being reincarnated as "the sentimental naturalist," as the *Spectator* once christened me, in spite of the fact that the *Manchester Guardian*, by way of friendly retaliation, talked about my heart being in the right place!

Next to the Thrush comes the magic Nightingale, and although



I consider too much fuss has been made of its song, to the detriment of other British birds, I am fain to confess that when I catch its strains anew, as I did this morning, I am at a loss to express my inward feelings. No written description can convey an impression of one tithe of the inspiration that steals into one's heart, when listening to Philomel in its embowered retreat, and I must let Mrs Hungerford tell the story thus :—

“Beyond and above the music of the land comes the song of the Nightingale, that, resting in yonder thicket, pours forth its heart in tender, hurried melody, as though fearful the night will be too short for him to utter forth his love chant, and disburthen his full soul of all its music. The notes rise, and fall, and tremble, on the air. No other sound comes from the breast of Nature to mar the richness of its tones. No earthly thing seems living but itself. For it the night appears, and draws its sable curtain stained with gold over the sleepy world. This Nightingale, of all the feathered tribes, is wakeful, and chants its hymn of praise at midnight, whilst all its brethren rest in peaceful slumber. The intense and solemn stillness of all around, renders more enchanting the trills and tender trembles that shake its tiny throat.”

The male Nightingales arrive a week or so before the females, and each one takes up the position it occupied the previous year, or, at all events, a great many of them do so. It is remarkable to notice with what regularity the Nightingale and other Summer migrants return to the same haunt year after year, and it is a pleasant occupation to watch and listen for the sweet-tongued orators when Springtime has come round again.

When the pairing season is at its height, the song of the Nightingale is something to be remembered, for the bird pours out its rich, passionate notes all day long, and far into the night.

I have never experienced such remarkable tameness in such a usually shy and recluse bird as I have done with the Nightingales which are found on Norton Common opposite my house, and many people who have accompanied me on an ornithological pilgrimage have remarked upon this fact. The bird books will tell you that the Nightingale is an extremely shy bird, that it hides its body in the thick shade of a thorn bush, that it rarely, if ever, comes out into the open, and that it is much more often heard than seen. But on Norton Common, Letchworth, the Nightingales may be *seen* singing without making any attempt

at concealment, and, when once located, can be heard and seen to great advantage.

One day, to my immense surprise, I discovered that I could start a Nightingale singing by making an attempt to mimic a few of its long-drawn-out notes. A real feathered Nightingale close by took up the challenge, mistaking my notes, of course, for those of a rival bird. I was hugely delighted, as the reader may well imagine, having studied birds for so long a time. I then went the round, that is, I visited all the Nightingale's haunts with which I was acquainted, and was fortunate enough to start the male bird singing in every instance! Very often the male crept cautiously towards me in his excitement, chattering and scolding as he came nearer and nearer, and, as I gradually worked him up, he poured out a perfect torrent of vehement notes. On one occasion, three male birds flew into the open where I stood, all attracted by the strange challenge which I had uttered! When they discovered the culprit, they quickly returned to their chosen retreats.

Under ordinary circumstances the bird should at least be heard in song from mid-April until mid-June, but some years it ceases its minstrelsy before June, although I sometimes manage to encourage a solitary individual to respond to my summons when the Roses are a-bloom. I regularly practise this bird-calling nowadays, and have had some remarkable successes with the Nightingale.

The Nightingale undoubtedly resorts to singing for the purpose of attracting a partner in the same way as our Song Thrushes, Skylarks, Chaffinches, and other song birds, and when once a female has been wooed and won, and the serious business of life commenced, the male bird's passionate outbursts of song soon become less conspicuous, as his time is occupied in helping to construct the nest, and attending to the requirements of his little consort when she, solicitous mother, is engaged incubating her olive-green eggs.

Next comes the Garden Warbler, a little-known bird that visits large gardens, woods, commons, and other places when Summer is a-coming in. It is a shy cousin of the Blackcap and Nightingale, but delights in hiding its sober body among Oaks and Sycamores, where, apparently, it searches with success for insect prey. It is a busy-body among bird folk, and seems for ever hunting for food. It has little leisure even for *stopping* to sing, pouring out a continuous gurgle of rich, musical notes as it threads its way



through the leafy vista, feeding and singing as it goes. Though its notes are not so varied as those of the Blackcap, perhaps they are even mellower and sweeter, and I shall never forget once, and once only, hearing a company of Garden Warblers singing *in chorus* just after they had arrived in an Oak wood, where, as a boy, I delighted to ramble. The song, although so rich, can easily be unheard by those who do not listen for the utterances of birds, and I have frequently watched a passer-by to ascertain if the song attracted attention. As a rule, no notice whatever has been taken of the dulcet madrigal within earshot, and I have been left alone to assimilate the sights and sounds around me. This Warbler is more local in distribution than the Blackcap, but where both species occur it is difficult, even for the expert, to correctly ascertain one singer from the other. I have been deceived many times, in spite of the fact that, as a rule, Blackcaps incorporate in their song the scratchy notes of the Greater White-throat. This, so far as I am aware, the Garden Warbler never does.

The Tree Pipit is certainly one of my favourite song birds, and I like it because it has the invariable habit of coming back to the same place each year. Even when the bird is away wintering in Africa, I look longingly at its watch-tower at the summit of a tall Poplar that it uses in the glad days of Summer, and wish for the bird's return to its old haunt. Once it has returned, no time is lost in pairing, as the male bird undertakes its fascinating song-flights the whole day long for the set purpose of obtaining a female partner. It is known as the Titlark in many country districts, and, being a Pipit, it is closely related to the better known Lark. Some of its notes, too, resemble those of Shelley's "blithe spirit," but they are louder and more forceful in the Tree Pipit, and are uttered under different circumstances. Sometimes it sings on the ground, a clod of earth, or from its watch-tower in bush or tree, always near the summit, but, to see and hear it at its best, one must wait until the bird throws itself into the air, and then mounts several feet, until such time as, having acquired the impetus, it descends with motionless wings, gathering strength of song as it proceeds. I never tire of watching this bold adventurer, for it is linked up with some of my happiest memories of days well spent in Nature's wonderland.

Although such a reveller in the air, and such a dweller in the tree-tops, this species, like the Lark, does not altogether scorn the ground, whither it descends to nest and feed. It possesses

a long claw on the hind toe which, it seems, aids the bird in threading its way among the dense herbage that it so dearly loves to frequent.

When several Tree Pipits arrive simultaneously over a given area, and even a few perform their song-flights, accompanied by pæans of joyful outbursts, the scene is one not readily forgotten.

The plaintive, but altogether sweet, piccolo solo of the Willow Warbler has always made a strong appeal to me, for there is a

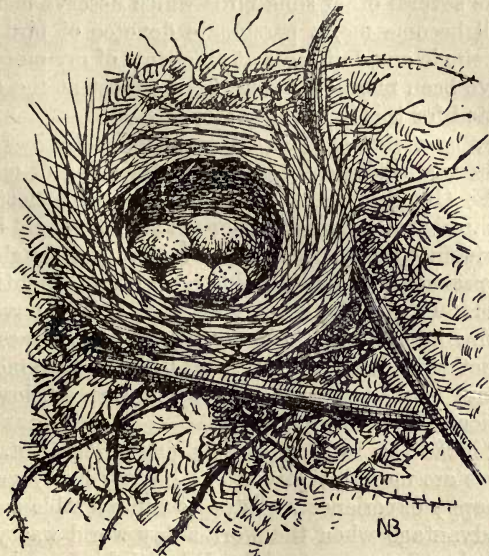


FIG. 37.—NEST AND EGGS OF BLACKBIRD.

simplicity and homeliness about its song which has an indefinable charm. This little bird, a mere bundle of feathers, is very persistent in its vocal efforts, and, if the season is congenial, it may often be discovered taking toll of the insect life which abounds in the vicinity of a Sallow bush in Spring.

Although the Blackbird has a late place assigned to it among my favourite song birds, I love its mellifluous notes none the less. I like best to listen to its sweet cadence towards evening, especially near the open doorway, as I know then that my garden Blackbird is in good fettle, and mightily proud of the nest and eggs he and his spotted consort have produced in one of my laurel bushes, as they have done for three years past. He does



not in any way compare with the Song Thrush, in so far as the variety of his notes is concerned, indeed the song has little variation, and is often abruptly ended. What there is of it, however, is of the first water, rich mellow notes, tinged with plaintive sadness, striking the ear restfully at a time of day when Nature is preparing for respite, and we ourselves are feeling the need of some soothing influence, such as only the Blackbird's song can bring.

There are several other song birds which deserve mention, and it would ill become me, a passionate devotee of bird study, to overlook a single one, but most at all events of my more favoured singers have been mentioned, and I am almost at the end of the space allotted for this link in my story.

There is, however, one bird I must refer to in conclusion, which, although hardly a song bird, is deserving of mention. I refer to the Grasshopper Warbler. Its curious electric notes, which fill the air with their vibrations of sound, should be listened to, for preference, when Nature is hushed, and nought but the hoot of a passing Owl, or the minstrelsy of the Nightingale, are to be heard. It sings both early and late, and I have watched this bird singing early in the morning when the grass has been wringing wet with dew. It comes out into the open more readily than the bird books tell you, and may be seen at close quarters if only patience is exercised.

Morning is *the time* to hear birds singing *at their best*. Perhaps we ourselves are more receptive then, but for many years it has been my happy experience to listen to innumerable songsters to the best advantage when the work-a-day world was yet asleep, and the whole universe seemed flooded with bird music.

## CHAPTER VI

### SOME BIRD PROBLEMS

(*A Paper read by the Author before the Linnean Society on May 6th, 1913*)

THE observations which I have the honour of placing before this learned Society are based upon my experiences as a keen observer of our British birds for more than thirty years, and of recent years I have endeavoured to probe some of the life-secrets of these feathered creatures rather more from the Nature-study point of view than otherwise, and, as a result, find the pursuit more fascinating than ever. The points to which I wish to direct notice have occurred to me over and over again during the course of my outdoor studies, though I do not claim that these so-called "problems" are other than purely elementary, and I am only a humble follower of Gilbert White, in all his old simplicity, and imbued, I hope, with the same love of Nature, and spirit of enquiry, which characterised the Naturalist of Selborne. One remembers, too, that Charles Darwin, with whose name this learned Society is inseparably associated, was always asking the questions *Why* and *How*, so that it is stimulating for even a humble enquirer to follow the Master Naturalist's example.

At best, my own notes can only be more or less disjointed and fragmentary, and it is somewhat difficult to group them together in any orderly sequence. To overcome this difficulty I propose following the new list of British Birds recently issued by a Committee of the British Ornithologists' Union, and treating of the species to which I am desirous of drawing attention *in the order in which they occur in the list referred to*.

My studies have been confined for the most part to our more familiar British inland birds, and it is to a few of these that I propose to direct notice.

The *Corvidæ* hold pride of place in the B.O.U. List, and to this interesting family the Rook (*Corvus frugilegus*), and Carrion Crow (*Corvus corone*) belong. There are four points of interest which occur to me with regard to these species as follows :—



A. Why is the Crow, like the Raven (*Corvus corax*), a solitary species, as compared with the social Rook?

B. Why does the Crow hop, and the Rook walk?



FIG. 38.—FEMALE ROOK ARRIVING AT NEST.



FIG. 39.—MALE ROOK LEAVING NEST.

C. Why do some Rooks repair their nests year by year, leaving the old ones intact during Winter, whilst other colonies destroy the whole of their habitations before quitting them for the Winter, building entirely new nests the succeeding Spring?

D. Is there any truth in the statement that, unless young Rooks are shot each year at, or near, a Rookery, and their numbers thus reduced, the birds will forsake even a long-tenanted haunt ?

To the large family *Fringillidæ* the Finches belong, the first of which the Greenfinch (*Chloris chloris*) is one of the commonest species. My observations lead me to conclude that this species often NESTS in *small colonies*, more especially in the neighbourhood of farms. Is this colonising nesting habit borne out by the observations of other ornithologists, and, if so, why has this interesting habit been developed ?

The Hawfinch (*Coccothraustes coccothraustes*) is something of a puzzle, in so far as it has developed a positive genius for leading an elusive and solitary existence. Apparently this species has not been subjected to any special persecution. "At all events," as Horace Hutchinson says, "it has been free enough of persecution since it selected this Island for its habitation. It has been far too clever for the ordinary Briton to succeed in harassing it." To what then is its craftiness in eluding pursuit, or detection, to be attributed ? Its wariness and skill in hiding pertinently reminds me of a different type of bird, the Wryneck (*Iynx torquilla*) which, in spite of its giving voice persistently, and thus disclosing its whereabouts, is one of the most difficult birds to locate with which I am acquainted.

The House Sparrow (*Passer domesticus*) is very fond of plucking Primrose blossoms in woods and elsewhere during Spring, the flowers being nipped off near the base of the corolla tube. The blossoms are not carried away, nor eaten. A suggestion has been made that the bird carries out this practice because it is fond of the nectar, which it is able to remove after severing the blossom. Is this so ?

The specific name of the Tree Sparrow (*Passer montanus*) indicates that this species BELONGS TO THE MOUNTAINS. The bird is generally overlooked owing to confusion with its commoner relative, last under review, but is quite a familiar bird when the points of distinction are recognised. It is certainly not a bird *of the mountains*. I have a note concerning this species that the clutch of dark eggs invariably contains one light-coloured variety. Can any reason be assigned for this ? The light egg is easily distinguished from the remainder as they are invariably very dark. I find also that this species is very partial to nesting boxes put up in woods, and always builds *an open nest* therein, whereas *Passer domesticus* constructs an arched structure when



taking advantage of an artificial bird home, as it also does when nesting under natural conditions elsewhere. This appears to be interesting and worth recording.

The Chaffinch (*Fringilla cælebs*), as is well known, separates during Winter into distinct flocks consisting of males or females, and travels about thus until the flocks break up in Spring. Why should the Chaffinch do this? Is such a proceeding common to any other of our smaller birds, and can any reason be assigned for this interesting habit?

The Linnet (*Acanthis cannabina*), is very fond of *singing in chorus*, and, when thus listened to, constitutes one of the most delightful performances in the orchestra of bird music. Why has the Linnet, a gregarious species at most times it must be admitted, acquired this taste for chorus singing, one of the few species I am acquainted with which carries out such a proceeding?

The Bullfinch (*Pyrrhula pyrrhula pileata*) seems to be paired all through the year. Remembering how gregarious other British Finches are in Autumn, Winter, and early Spring, is not this remarkable? May we assume that this handsome species is one of the few British birds that pairs for life?

The Corn Bunting (*Emberiza calandra*) revels in desolate places such as downs, commons, and wide, open fields. In the wind-swept country of North Hertfordshire it is a very common species, but in Mid-Herts it is comparatively rare, though apparently the conditions are equally suitable. Can any reason be advanced for this?

The curious scribble-like markings on the eggs of Buntings are easily obliterated when freshly taken. How comes this about? The markings on the eggs of other birds seem much more indelible.

To the Family *Alaudidæ* the Skylark (*Alauda Arvensis*) claims kinship. This renowned songster, according to my diary for the past fifteen years, has a song period of at least nine months out of the twelve. Pairing is apparently brought about by the conquest of song, as with most species of soberly-clad and fine-voiced birds. Other song birds, however, such as the Nightingale (*Luscinia megarhyncha*), cease their minstrelsy when pairing has taken place, or soon after nesting has begun. Why should Shelley's "blithe spirit" be the most prolific songster we have in this country, and what can be the reason for this glorious outpouring of music in all weathers on at least 250 days out of 365?

The *Motacillidæ* contains one of the most delightful families

of British birds, namely, the Wagtails, and, to take one of the more familiar species, the Pied Wagtail (*Motacilla lugubris*), I am tempted to enquire what reason can be given for this bird's habit of flirting its tail in the entertaining manner it is wont to do? It is, I believe, the smallest bird that walks, and in running and walking over clods of earth, in a grass meadow, on a lawn, or by a stream-side, or elsewhere, it has the invariable habit of moving its tail feathers rapidly up and down. The habit is so common that one never stays to ask THE REASON WHY, and it is as well to find out something further about these everyday occurrences.

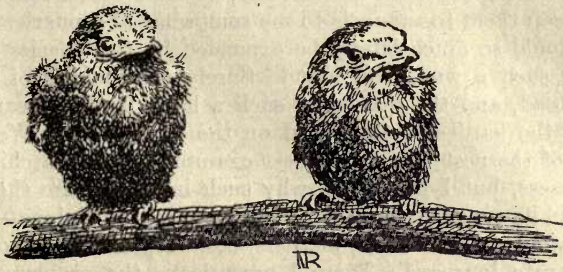


FIG. 40.—YOUNG BLUE TITS.

The Meadow Pipit (*Anthus pratensis*) has a habit, when flushed from the nest, of flying low over the surrounding herbage, and feigning a broken wing, or being wounded. The reason assigned for this is that the bird may lure the observer from its nest, and, whilst this may be true, the explanation would be more satisfactory if we could ascertain how the bird has come to adopt such a capital ruse, and why, if it succeeds in accomplishing its object, it should be one of the few birds which adopts the habit in question.

The Family *Paridæ* contains those most entertaining and active birds, the Titmice, and, although there are several points of interest one would like to mention concerning them, I will content myself by drawing attention to the large clutches of eggs which these birds produce, e.g. Blue Titmouse (*Parus cæruleus obscurus*), 7-12; Coal Titmouse (*Parus ater britannicus*), 6-9; Great Titmouse (*Parus major newtoni*), 6-12; Long-tailed Titmouse (*Ægithalus caudatus roseus*), 6-12 or more; Marsh Titmouse (*Parus palustris dresseri*), 6-8. Is there any special reason why these birds should produce such large clutches of



eggs? In 1914 four nesting boxes came under my notice at Letchworth which contained fifty-three young Blue Tits, and, when one adds the eight parent birds, we get a full total of sixty-one birds concerned with four nests, or an average of fifteen birds per nest. I have known the Long-tailed Tit to have a clutch of sixteen eggs, and, when one remembers the arched-in nest, with a small hole and interior, it is astonishing how such a large family can be reared in comfort, and sufficient food obtained by two small parent birds to keep sixteen hungry babies going. Why such large families should be reared by this species, unless it be its fondness for travelling about the countryside in little troops during Autumn and Winter, so that blood relationship may keep them together, is to me somewhat of a puzzle. Why, too, should so much labour be expended by this species in producing such a wonderful nest? Surely the making of such a homestead, and the rearing of such a large family, means that this is the hardest-worked bird on the British list. We speak glibly of the nest being the finest example of avine architecture we possess, but I fail to see why such immense care should be taken in its construction, the collection of material alone—lichen, moss, wool, spiders' webs, feathers, etc.—representing thousands of separate journeys. There I must leave the problem in the hope that some light will be thrown upon it.

The Family succeeding the Tits contains the *Laniidæ*, or Shrikes, and I wish simply to ask here whether it is a fact that our Summer visitor, the Red-backed Shrike (*Lanius collurio*), is such a butcher bird as he is represented to be, and whether it is a common habit of this species, as we have for long been told, to catch its victims, impale them on thorns, and form a sort of larder? During the whole of my country wanderings I have only discovered one such larder. Are they of common occurrence?

The Family *Sylviidæ*, or Warblers, contains some of our finest song birds, and a few brief notes concerning certain species may be set out. The Greater Whitethroat (*Sylvia communis*) is a bold, fearless bird compared with its shy, retiring cousin the Lesser Whitethroat (*Sylvia curruca*). The former comes out into the open to sing its vehement, scratchy song, appearing in the air in a state of suspended animation, whereas the latter utters its little-varied and bell-like notes more often than not unseen, deftly hiding, or skulking, within some safe retreat. Yet its voice is one of the most constant among our Summer wood-

land visitors. The point of difference in habit seems interesting, and worthy of comparison.

Those two magnificent songsters, the Garden Warbler (*Sylvia simplex*) and Blackcap (*Sylvia atricapilla*), are a source of confusion in regard to the notes they utter, even to the practised ear, but my observations lead me to the belief that the Garden Warbler always sings when on the move, mostly when searching for insects, whereas the Blackcap, although of a restless disposition, is more fond of remaining stationary in an elevated position, pouring out its remarkable flood of melody with its black crest feathers prominently raised. The repertoire of this latter species is wonderful, and one bird which seems to return unfailingly to a common opposite my house, rattled off in quick succession last Summer the easily-distinguished notes of the Whitethroat, Thrush, Robin, Goldcrest, Blackbird, Nuthatch, Linnet, Nightingale, Garden Warbler, and Greenfinch.<sup>1</sup> It was certainly the most remarkable utterance by an individual bird that it has ever been my good fortune to listen to, in particular the notes of the Blackbird, Nightingale, and Nuthatch being most distinct. Why should one individual soloist have at command such an outburst of mimicking song? Why should this particular bird friend of mine be the only known mocking bird in the parish?

Coming to the Family *Turdidæ*, or Thrushes, enables me to draw attention to a controversy which has recently taken place as to whether the Mistle Thrush (*Turdus viscivorus*) utters a song. Whoever thought fit to question the matter must have been singularly lax, as, without doubt, this gipsy among birds, of such roving disposition, does sing in spite of its old-fashioned English names of Screaming Thrush, Screech Thrush, and Storm Cock. The notes strike the ear as somewhat short, jerky, and little-varied, but they are quite musical, and, uttered at a time when most other birds are silent, are always welcome. Compared with the utterance of the Song Thrush (*Turdus musicus clarkii*), that of the Mistle Thrush suffers considerably, but it is a slight upon the latter to term the former the Song Thrush when both species are rightly classified as song birds. I have a note as to the nesting habits of the Song Thrush and Blackbird (*Turdus merula*) which seems worth consideration. This refers to their nesting upon, or close to, the ground much more frequently than in days gone by. To what is this due? Is the explanation to be found in the fact that woods are so often cut

<sup>1</sup> See also Chapter V.



down nowadays that the birds, rather than leave their old haunts, nest in the stubs of trees, or bushes, that are left ? This observation is remarked upon year after year, and deserves recognition. I would also seek a solution of the problems as to why : *A.* The Blackbird is such a solitary species, and, so far as I know, does not flock. *B.* Why the Song Thrush is so much tamer than the Blackbird, when both species resort to the same haunts, and the same mode of life. *C.* Does the Blackbird pair for life ? *D.* Why is a Blackbird with white feathers so often mobbed by others of its own species ?

In "British Birds," March, 1915, Mr G. Bathurst Hony gives particulars of a Mistle Thrush's nest where the parents swallowed the pieces of empty shell, and the fæces, until the last day or two that the young were in the nest. The fæces, we are told, were then carried away. Is it not most unusual for birds to swallow egg shells and fæces, and, except in the case of colonising seabirds, is it not rather true that shells and fæces are always removed from the vicinity of the nest ? I have noticed with interest that, when feeding their young, the parent Great Tits fly in with food and emerge almost invariably carrying excrement, with which they fly away some considerable distance. This hygiene among birds, even in the case of the despised Sparrow, is deserving of record.

In the *Scottish Naturalist*, 1914, Mr W. Evans relates that he watched a Blackbird greedily devouring Daisies, and Mr J. K. Nash states that he has seen a Song Thrush in two different seasons feeding fully-fledged young with the same flower. Only blossom heads were eaten, the full length of stalk being left. Is this usual, and are Daisy flower heads nourishing to birds ?

I have noticed particularly that, in addition to feeding the spotted chicks when they have left the nest, the male Redbreast (*Erithacus rubecula melophilus*) also supplies the adult female with food. Comparing this pleasing domestic trait with that of the Wild-duck (*Anas boschas*), the drake of which forsakes his consort as soon as nesting operations are commenced, one is bound to regard the homely Redbreast as a species which has developed full paternal responsibility for attending to his wife and children, both as a dutiful husband and solicitous father.

Passing on to the Stonechat (*Saxicola rubicola*), that impetuous bird which is such a lover of furze commons, I have a note that, whereas the food of this species consists, as a rule, of insects, I have seen it dangling a Lizard in its beak, and have also known

the Redbreast to catch and devour Sticklebacks! These I know are isolated instances, but there must be a reason for this change of diet, even if only occasional. Both the lizards and fish were captured in Summer when food was plentiful.



FIG. 41.—STONECHAT.

Not long ago I was watching a Dipper (*Cinclus cinclus britannicus*) manœuvring around a beck in Yorkshire. This species has always been somewhat of an ornithological puzzle to me, for it is a song bird that dives and a waterbird that sings. It does not possess webbed, or lobed, feet, yet it flies helter skelter down stream, dashes headlong, and without the slightest hesitation, into and under the water, and probes about for food on the bed of the stream. I have never seen it swim. Can any light be thrown on the structure and habits of this bird? Why, too, like the Redbreast, has it acquired the habit of bobbing up and down as if on living stilts?

The Wren (*Troglodytes troglodytes*), as is well known, builds more nests than are occupied for rearing a family. So far as I know, no satisfactory explanation for this has been forthcoming.



Why, too, does this perky little bird carry its tail cocked up in the characteristic manner known to almost everyone ?

The three members of the *Hirundinidæ*, the Swallow (*Hirundo rustica*), House Martin (*Chelidon urbica*), and Sand Martin (*Riparia riparia*), are interesting from many points of view. Although so closely related, they construct nests of very different types, that of the House Martin being, as a rule, the only exposed nest of the three species. The Sand Martin is, of course, a tunneller, boring a hole about an arm's length in the face of a sand pit, cliff, or river bank, and depositing a nest of grass, feathers, etc., at the extremity.

Of plaster nest-building birds we have very few examples on the British list, the House Martin being the most famous of these. Why do these three closely allied species differ so considerably in nest construction ? An interesting example of an entire plaster nest built by a Nuthatch (*Sitta cæsia*), at Wadhurst, Sussex, is recorded in "British Birds," March, 1915 ; the nest, consisting wholly of plaster like a House Martin's, being built in a haystack, and weighing six and a half pounds. It was lined with flakes of bark in a similar way to the more orthodox structure.

I only refer to the Nuthatch here because of this reference to plaster nest-builders, the former, as a rule, hewing out a hole in a tree, and using mud to close up the entrance hole until it is just sufficient to permit the owners to go in and out. An entire plaster nest of this species in a haystack seems worth mentioning by way of comparison.

The *Hirundinidæ* are infested with parasites. Gilbert White drew attention to this, and I have remembered it ever since reading the delightful letters when quite a boy. White says the birds are infested with Norfolk Howards, which is, I believe, a popular name for a kind of Bug. Is it usual for most birds to be infested with parasites, or do such creatures prey upon Swallows and Martins rather than other birds ? If so, why ?

The Cuckoo (*Cuculus canorus*) is a source of perennial interest and mystery, and much might be written concerning many points which have not been satisfactorily cleared up. I will briefly refer to the size of the egg. Here we have a bird about the same size, and very similar in general appearance and upon the wing, as the Sparrow Hawk (*Accipiter nisus*). Yet the Cuckoo produces as small an egg as that of the common Sparrow, whilst that of

the Hawk is as large as a golf ball. The reason seems obvious, *e.g.* that if the Cuckoo produced an egg equal in size to that of the Hawk no small bird upon which the Cuckoo thrusts its charge would tolerate it, and the Cuckoo would defeat its own end. How has this remarkable adaptation come about? Moreover, it should be remembered that, in spite of the smallness of the Cuckoo's egg, the newly-hatched chick, though blind and practically naked, is possessed of immense strength, and bundles out of the nest in which it is born everything that is there beside it. I would further ask concerning this species how the sexes call one another, if, as is now recognised, they both utter the well-known double cry, and how the young Cuckoos find their way, without parental guidance, to Africa, or India, in Autumn, when they have never before left the confines of one's own parish, and the adult birds have preceded them by some weeks, or even months?

It is, by the way, still believed in some country districts that the Cuckoo turns into a Hawk when Summer is on the wane. A Hertfordshire countrywoman told me with immense seriousness not long ago that this really was so. A custom in my native county, too, when first hearing the Cuckoo in Spring, is to throw everything one is carrying into the air and to curtsy violently. I have seen this operation performed by the gentler sex on more than one occasion!

Small birds are, during Summer, often seen flying in pursuit of a Cuckoo, evidently possessed with a desire to mob it, or drive it out of a district. Do the small birds know it is a Cuckoo and wish to retaliate because of the parasitism it practises, or do they mistake it for a Hawk?

The Nightjar (*Caprimulgus europæus*) was another bird which greatly interested Gilbert White, and, whilst many old-fashioned notions concerning this species have now been exploded, its production of two rounded eggs, laid upon the bare ground, seems to me of more than passing interest. Most British birds which deposit their eggs on, or near, the ground, or make little pretence at nest building (examples: Ringed Plover (*Ægialitis hiaticula*), Lapwing (*Vanellus vanellus*), Partridge (*Perdix perdix*) and several others), produce a pear-shaped egg, and these are, except in the case of the Partridge, usually four in number, so that they may be placed with the small ends tapering towards the centre in order to take up the least amount of space, the reason apparently being that the sitting bird may cover them all successfully.



The egg of the Nightjar, however, is equally rounded at either end, and, as this species only lays a clutch of two eggs, there is no necessity for it to produce a pyriform egg, as such a large bird can easily cover the two eggs, or young. But what I cannot understand is that, whilst the young of most species of birds which nest upon, or close to, the ground, and, in addition, Moorhens, Coots, Waders, Ducks, and probably some others, are able to run or swim about and take care of themselves as soon as hatched, the young of the Nightjar are helpless for several days, and remain where they are hatched until such time as they can shift for themselves. What is the explanation of this? Being so helpless for several days, young Nightjars are, in consequence, more subject to attack by Stoats, Weasels, Foxes, Rats, and other creatures, provision against which has, however, been made by the other species I have mentioned. The wonder to me is that the Nightjar survives as well as it does, but, being nocturnal is, I presume, one reason why it keeps up its numbers.

I have a note respecting the Kingfisher (*Alcedo ispida*) which has always puzzled me, and it is this. Both sexes are equally beautiful; it is, I suppose, the most handsome species we have in Britain. Can any light be thrown upon the pairing habits of this species, in view of the fact that brilliant attire and song rivalry do not seem to enter into consideration? Is it not remarkable to note, too, that, in spite of the brilliant attire of this species, and its pure glossy-white eggs, the nest and its surroundings are often of a filthy description?

I pass by the Owls with the remark that it has long puzzled me why those species that are nocturnal in this country utter such loud notes. Are these notes sexual calls, or are they uttered for the purpose of disturbing prey? Do the notes, on the other hand, have a reverse effect, *e.g.* send the prey scuttling to cover? Surely the notes would not be uttered so persistently if the latter theory held good? Owls possess a soft, noiseless flight which is essential for hunting purposes under cover of darkness, and, at first sight, one would imagine that vocal quietude would also be an essential, but this does not appear to be the case. It may be asked, too, why are the Little Owl (*Carine noctua*) and the Short-eared Owl (*Asio accipitrinus*) diurnal as well as nocturnal in their habits?

In the Hawks and their kin the female is much the larger of the two sexes. This is particularly noticeable in the Sparrow Hawk (*Accipiter nisus*). What is the reason for this?

Those who have watched the aerial evolutions of a Kestrel (*Falco tinnunculus*), so faithfully described by Richard Jefferies, have doubtless been struck, as I have, with the immense persistence which this species exhibits when hovering during its search for prey, and how rarely it comes to earth as a result of its ceaseless quest. It seems to me that this species has to work exceedingly hard to make a living, and possesses powers in the air which mark it off, as it were, from any of the other smaller birds of prey. Do these suggestions open up any features that are likely to afford further information and enlightenment?

The distribution of the Gannet (*Sula bassana*) as a nesting species is interesting, as, so far as is known, its nesting sites throughout the whole world can probably be counted on the two hands, yet there are hundreds of sites which appear equally suitable. Many species of British birds, we know fairly conclusively, return to the same haunt year after year. The Gannet appears to do so, too, with unfailing regularity, and we are told its numbers neither increase or decrease, but always appear to be normal. Is any further information forthcoming on the points I have raised respecting this sky-pilot, as we may call it, a species which watches for its finny prey from a tremendous altitude, possesses a remarkable focussing power, and takes as superb a headlong plunge into the sea as any creature which thus gets its living.

Most of our British Ducks build open nests, but there is an exception in the case of the Common Sheld-Duck, or Burrow Duck (*Tadorna tadorna*), as it is also called. This species burrows into sandhills, and places its nest at the extremity. Why should this species adopt this nesting habit which is so different from that of its relatives? I would also ask why the Wild Duck (*Anas boschas*) feeds on the surface of the water, while the Pochard (*Nyroca ferina*) dives for its daily bread? There are other comparisons that might be made respecting these upper and under surface feeding Ducks, as they may be called, but these two concrete examples will serve the present purpose. Is any explanation to be offered respecting this difference of habit in such closely-allied species?

The Stone Curlew (*Edicnemus edicnemus*) is one of our most interesting Summer Migrants. It resorts to large, open fields, heaths, downs, and desolate, waste places, where there is little cover. It is a strong-legged species, keen-eyed, and a capital



runner. It adopts an outstretched, squatting posture, when wishing to conceal itself, and rarely takes to flight. Catching a young one only a few hours old, it was placed on a handkerchief, and photographed successfully in that position for the purpose of showing the habit of the young bird, as well as the adult, of crouching and remaining still.<sup>1</sup> Apparently the young Stone Curlew was unconscious of the fact that it was easily observable on the white handkerchief, and thus defeated the object it had in view, though, under ordinary conditions, its concealment would be satisfactorily effected. To what is this early knowledge of the parental method of protection adopted by the young Stone Curlew to be attributed? Being only a few hours old, I take it the youngster, whose interesting precautions I have narrated, inherited the habit from its parents, as a young Partridge, even when just out of the egg, takes cover among herbage, or a baby Moorhen plunges, when disturbed, from its rush nest into the water, and swims at once with ease and facility.

Most Wading birds—Sandpipers, Shanks, Godwits, Snipe, Stints, and their kin—have long, straight beaks, admirably adapted for probing for food, but why has the Curlew-Sandpiper (*Tringa ferruginea*) a curved beak like the Curlew (*Numenius arquata*)? Why also has the Curlew a long, curved beak, while the Avocet (*Recurvirostra avocetta*) has its beak, as a wag at one of our provincial museums remarked, “turned the wrong way up,” or, to be more accurate, acutely recurved towards the extremity? The long, straight beak seems to serve the many other species I have mentioned quite well. Why should there be these exceptions to the rule?

The immense colonies of Guillemots (*Uria troille*) around our coast are well known to bird students, as also the fact that each pair of birds has only one pear-shaped egg, which is placed on the bare rock without any attempt at building a nest. It is stated—and doubtless with some degree of truth—that no two Guillemots’ eggs produced by different birds are ever exactly alike, so that each pair of birds shall be able to distinguish their own egg among the large colonies that are gathered together. But where so many eggs are laid quite close together, and in many types there is not, in reality, such a great diversity of colour or marking, must there not be developed in this species some acute sense of recognition of which we humans are not cognisant?

<sup>1</sup> See also Chapter IV.

The Fulmar Petrel (*Fulmarus glacialis*), according to my friend, Mr Oliver G. Pike, has two interesting traits, which I venture to bring to your notice. When the Fulmar has an egg in the nest, Pike states, she is easy to approach, but when the single young bird is hatched, the mother bird flies off long before one is near her. One would have thought the parent bird would rather stay to defend its young than forsake it when danger threatened. When the Fulmar does stay at home, it protects itself by opening its beak and shooting at the intruder a quantity of evil-smelling green oil. The first charge, Pike says, carries about a yard, but the second and third charges fall short of this. Certain insects, both when in the larval and adult states, are, we know, thus provided against enemies, but is it not rare in the bird world, and why has the Fulmar developed this uncommon habit among feathered bipeds ?

A point which has always interested me, associated with Grebes, Rails, Crakes, Moorhens, and Coots, is in regard to the structure of the foot, as compared with that of other aquatic birds, such as Ducks and Geese. In the latter, of course, the toes are all united, or completely webbed, but in the case of the Grebes and Coots the toes are curiously lobed, whilst in the Rails, Crakes, and Moorhens all the toes are quite free. Yet all these different species are aquatic, and equally good swimmers. Why should there be this diversity in birds of similar habits ? The Moorhen (*Gallinula chloropus*), it is true, spends much of its time on land, and is a good walker and runner. It often places its nest several feet high in trees near water. Is it reasonable to suppose that in the course of time this species will cease to be aquatic, and lead a terrestrial life entirely ?

The Ring Dove, or Wood Pigeon (*Columba palumbus*), takes a draught of water when drinking, and seems to be an exception to most other British birds in this connection. Why is this ? It also feeds its young in a different manner by regurgitating soft portions of food from the crop. Why and how have the *Columbidæ* developed these interesting habits ?

The Red-legged Partridge (*Caccabis rufa*) has a curious habit of leaving its own nest and eggs before incubation commences, and depositing some eggs in the nest of a Pheasant (*Phasianus colchicus*) or English Partridge (*Perdix perdix*). After an absence of a few days, it returns to its own nest and eggs, and duly performs its own domestic duties. What is the explanation to be offered in regard to this ?



This concludes my detailed notes, and I have only to add a few general ones. These may be tabulated thus :—

A. Where, when, and how do wild birds *die*, and why is it their dead bodies are not discovered more frequently ?

B. To what age do wild birds live, and are the ages they attain when kept in captivity any guide in this connection ?

C. How long do birds take to build a nest ? I have known isolated instances of a Song Thrush and a Redbreast beginning and completing a nest within twenty-four hours, but an imperfect knowledge exists of the time expended by most birds in the construction of their homes, and also as to the exact methods employed.

D. Why do some birds choose such well-advertised sites in which to place their nests, whereas others, belonging to the same species, are very adept at choosing positions where security is much more likely to be obtained ?

With these few general notes I bring my paper to a close, and, while thanking you for the attention with which you have listened to my observations, would emphasise that they only pretend to be a somewhat miscellaneous collection of musings which may, or may not, have any scientific bearing. But my love for, and keen desire to develop further interest in, our British birds, and the hope that some light will be thrown upon my observations, must be my reason for asking your indulgence on this occasion.

## CHAPTER VII

### MAMMALS I HAVE STALKED

OUR British Mammals are, with few exceptions, difficult to study at close quarters, but, in order to give a fairly comprehensive survey of my life as a Naturalist, there is here included a brief résumé of some of my experiences.

The various species of Mice and Voles have made a special appeal to me, mostly because I have had good opportunities of watching them both at work and play. The Dormouse is, perhaps, the prettiest of them all, and makes an affectionate pet, living in captivity for a number of years. I have watched it climb strong herbaceous plants and small bushes in Summer, presumably in its hunt for food, and I have aroused it from slumber in its cosy homestead in the depth of Winter. It is fond of tenanting hedgerows and quiet retreats where hazel nuts are found, as these constitute one of its chief articles of diet, and, where Oak woods abound, there also search may be made for this elegant little beast. Adorned in a rich tawny coat, with a thick, Squirrel-like tail, the Dormouse is hardly likely to be mistaken for any of its congeners.

When hibernating, it rolls up its dapper little body into a ball, wrapping its long tail right round the whole as a sort of provision, maybe, against coming unrolled until Spring summons it from its Winter sleep. One day I carried home a Dormouse in a state of suspended animation, and exhibited the furry ball in the classroom. I gently tossed the slumbering creature across a table, when, to the huge delight of the children assembled, the animal woke up, unrolled itself, and looked about in sheer amazement at the unfamiliar surroundings. It had gone to sleep in October in a cosy nest of dry grasses in a Hertfordshire hedgerow, but awakened in a schoolroom! The warmth of my hand and the room had affected the animal more quickly than I anticipated, but it provided the subject for a useful lesson to the youngsters who were almost frantic with delight.

The Harvest Mouse is another wee beastie, which, for general



elegance, is akin to its cousin last mentioned. I do not meet with the first-named very often, and I like best to discover it with a family party among the cornfields as the harvesters are busy cutting the ripened crops. Bright-eyed, keen-eared, richly ornamented in a coat of yellowish-brown above and white beneath, the Harvest Mouse builds its globular nest among the corn. On finding the nest one can usually tell at sight whether it is tenanted by the parent, as, when the female leaves her abode,



FIG. 42.—HARVEST MOUSE.

she takes the precaution of sealing up the entrance hole until her return. Thus the young are protected from the ravages of any predacious creatures of the cornfield during the mother's absence foraging for food. Although the tail is only partly prehensile, I have noted many times that when climbing a corn-stalk this species depends upon its caudal appendage for some amount of support, and, when thus seen, it is a pleasant little country episode not readily forgotten.

I have written of the Long-tailed Field Mouse in my notes concerning the wild life around house and garden, and, although I must confess that the Brown Rat is not one of my favourite mammals, its sleek coat, amazing powers of locomotion, and

exceeding cunning, are worthy of note. So, too, is its well-known power of reproduction.

I hesitate to set out in bald numbers the alarming figures associated with the fecundity of this remarkable creature, but here are a few. As a rule, from three to six litters are produced in a year, the female having her first litter when only three months old! The number in the litter averages about ten, but as many as fourteen and more young have been known to be produced by one female. A writer in *Chambers's Journal* states that "if three litters of ten each are produced every year, a single pair, if permitted to breed unchecked, and no losses from death were experienced, would in three years have a progeny of ten generations, numbering twenty million, one hundred and fifty-five thousand, three hundred and ninety-two! The eleventh generation, due at the beginning of the fourth year, would number over one hundred millions!"



FIG. 43.—STOAT.

I have stalked the wary and inquisitive Stoat many times during my country wanderings, especially in the Spring, when it not only hunts for ground "game," but ascends trees and tall bushes in its search for birds' eggs, for which it shows marked partiality. The eggs are cracked, and the contents sucked clean. Nest after nest in a hedgerow is harried in this way, the empty shells, which are left behind, giving sad evidence of the depredations of this stealthy little beast. Where Jays and Stoats abound, our resident Blackbirds, Thrushes, and Robins possess inveterate poaching enemies early in the year, and it requires



very considerable courage to keep such a ferocious animal as the Stoat at bay. I have seen a Stoat rear at a gamekeeper when the poor creature was firmly caught in one of the cruel toothed traps that are set for ground "vermin," and have begged for lenience when witnessing such a distressing scene. Yet, if the truth be told, the Stoat itself is no respecter of persons, as the terrified Rabbit displays when the former is in hot pursuit of its prey.

Cycling by the side of a favourite wood, flanked by a rough pasture honey-combed with Rabbit "runs," I observed a Rabbit suddenly bolt from the hedge pursued by a Stoat. They ran ahead of me as I quickly dismounted, and it was a neck and neck race for some distance until the Rabbit was outpaced. In less time than it takes to tell the story, the Stoat pounced upon its crouching prey, caught it by the neck, and killed it. By this time I had arrived upon the scene, only to find the Rabbit in its last death-throes, the Stoat meanwhile slinking away. I moved the Rabbit to the side of the lane, went a few yards ahead, waited, and watched. This is a good plan to adopt with most wild creatures, but particularly so when one is desirous of observing the Weasel, or Stoat, both of which are very inquisitive, and will appear, disappear, and reappear, if one has only patience enough at disposal. It was not long before I heard a rustling in the steep hedgeside. It was the Stoat returning to inspect its prey. He came stealthily down the bank, turned his head rapidly to left and right, scented the air, and then, perceiving the Rabbit, picked it up as a cat would her kitten, and trotted off with it along the road to its lair, a scene both of comedy and tragedy, such as may be constantly witnessed when studying wild animals and their wonderful ways.

I have for long regarded the wily Hedgehog with considerable interest, and have blundered against its prickly form on a dark night, and watched it hunting and feeding by day. Admirably protected by its plentiful supply of spines, the Hedgehog appears to possess few enemies except mankind. There is just cause for complaint on the part of the gamekeeper and poultry man, as, unfortunately, this animal of ancient pedigree has a strong liking for the eggs of Partridge, Pheasant, and domestic Fowl. I have known one Hedgehog take sixteen Pheasants' eggs out of a nest one by one, and scoop the contents dry in double-quick time, much to the disgust of the irate keeper standing by.

It may not generally be known that the Hedgehog is one of the few animals which is an enemy of the poisonous Adder, and

also that it is a capital swimmer. I have seen it take to water freely when pursued by a Terrier Dog. It swims with ease and facility, keeping its head and back just out of the water, and is a tough customer to handle even when it comes to land, as it takes the precaution to roll into a ball, and thus becomes immune from attack.



FIG. 44.—HEDGEHOG.

In the depth of Winter, when rambling in leaf-strewn copse or ditch, I sometimes disturb the Hedgehog during its hibernation, as, like the Dormouse, it is no lover of the cold, and prefers to pass the Winter months fast asleep in some sheltered retreat.

I am a great lover of the Hare, and, although I have never stalked any creature except with a bloodless intent through a field glass, I have obtained a great deal of quiet enjoyment in thus studying these four-footed inhabitants of our large fields and breezy common lands, so characteristic of homely Hertfordshire near the northern extremity of the county. When bird-watching in such a district, Hares have all unexpectedly jumped up from beneath my feet, having squatted in a "form" until I almost trod upon them. At other times, as I have been seated upon an inviting bank, close by a gap in the hedge, a fleet-footed Hare has shot through the gap at lightning speed, turning abruptly round to eye me as I shouted after it. The look of astonishment on the animal's face may be better imagined than described. I have fondled baby Hares—called Leverets—which I have caught napping. They are winsome little beasts, bright-eyed and large-eared, even in infancy, and make a strong appeal to those who are interested in the child life of wild Nature.

The haunt of the Hare is one of unlimited freedom. It roams at will the wide expanse of territory at its command, as the Lark



careers through the unfettered air. Both are lovers of unshackled liberty, and it is in their own-chosen haunts, watching them frolicking in the Spring, that one sees them at their best.

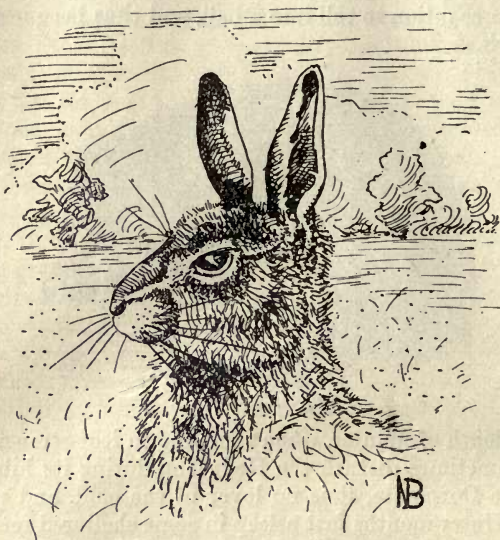


FIG. 45.—HEAD OF HARE.

I have been fortunate with my stalking expeditions after the sagacious Fox, and have watched it for hours during the day-time when the crafty beast has come above ground to make overtures to a vixen. One red-letter day will always remain with me, for I had the good fortune to watch, at fairly close quarters, a dog and vixen playing together after the manner of kittens! The reason for this delightful episode in broad daylight has puzzled me ever since it happened, and I never pass the haunt without vividly recalling the scene in all its details.

At other times, Foxes have dashed past me as I have stood watching for birds, or admiring the coy Primrose in a belt of favourite woodland, and I am so given to quiet observation, as a result of constant habit, that I have never "tally-hoed," as, being somewhat of a sporting person, I really should have done on such an occasion.

Of the craftiness and sagacity of the Fox much might be

written, as also of its courage in facing what appear to be insuperable obstacles and dangers. Two or three instances must suffice. A friend of mine in the North disturbed a Fox quite unawares along the Yorkshire Coast. He came upon it all unexpectedly round a bend in the coast. One would have thought that, being so fleet of foot, the Fox would rely upon its locomotive powers for the best means of escape, but, on the occasion referred to, it rolled over as if in a fit, and remained perfectly



FIG. 46.—Fox.

still! My friend was dumbfounded, concluding, even after examination, that the animal had suddenly expired from apopleptic seizure. He passed on his way, but chanced to look back, when, to his consternation, he observed that the Fox had bolted. It had, of course, *feigned death* as a method of escaping from man, its only known enemy, but the incident opens up a most interesting question of psychology, which I hand on to those who are competent to advance a thesis concerning the reasoning power of this sleek creature of rural England.

The next incident I have to relate has reference to a Fox caught in a toothed trap. It was held captive by one foot. To be thus discovered, meant instant death on the approach of the gamekeeper, and, to save its own life, even at the risk of losing a limb, the animal actually severed its captive foot, and hobbled off on three legs. Whether it survived the self-amputation I am unable to relate, and I have simply stated the bare facts as they are known to me on unimpeachable authority.

One night, when watching Pheasants in a secluded wood, the keeper and I heard a dog Fox barking. The Pheasants, about



two-thirds grown, were roosting in hazel bushes near by. In fifteen minutes the lust for spilling blood was so great that thirty-six Pheasants were killed by this one Fox, evidence, of itself, that much more food is killed than can possibly be eaten.

I have stalked the Red Deer in the Scotch Highlands with feverish excitement, and tramped weary, but never-to-be-forgotten, miles over moors of Heather and Bilberry, for even a distant sight of this chieftain of the wilds. I have seen small herds of Red Deer in the bonnie Island of Arran, set like a jewel amidst the



FIG. 47.—RED DEER.

gleaming waters of the Clyde, and among the everlasting hills and mountains I have passed many pleasant hours in company with a kindred spirit, studying the fauna and flora of the granite region of frowning Goatfell, and its surrounding mountain ridges.

A whole day thus spent has brought sly peeps at the handsome creature here depicted, and my Highland memories have been refreshed when, at home in Hertfordshire, I have watched the large herds of Red Deer at Ashridge, the seat of Earl Brownlow, or at Woburn, in Bedfordshire, where the Duke of Bedford has introduced this and many other breeds of noble beasts.

But it is among the hills, and the solitude of the glens of the far North, that this animal is seen in its wild fastnesses. It is associated in one's mind with the majestic sweep of the Golden Eagle, the eerie cry of the Curlew, the cackle of Grouse, and the tinkling song of the Meadow Pipit. Its haunt brings back to

memory tumbling burns, heather-clad slopes, fern-laden dingles, sundew bogs, ridges which seem never ending, always elusive, never exactly satisfying, a land of historic associations handed down to us through the centuries, rich in the footsteps of antiquity, where, to-day, the Wild Red Deer still roams free, monarch of all he surveys.



## CHAPTER VIII

### INSECTS I HAVE WATCHED

I WAS first attracted to the science of Entomology when in my teens, as on my fishing expeditions I used to watch the dandy Dragon Fly coquetting very near my float, and in those unregenerate days I sought after the larva of the Caddis Fly for bait. As I sat waiting for a "bite," Mayflies danced on mazy wings downstream, and many other aquatic insects came under my notice. Later on, when I had acquired some knowledge of insectivorous birds, and, later, of plant life, I was compelled to devote some amount of attention to winged creatures in order to appreciate and understand a few of the strands which go to make up the web of life.

I have long been puzzled as to why insects make such a limited appeal to even so-called Nature lovers, and I could never understand why more grown-ups do not see fit to become acquainted with the remarkable life-stories that some of our most familiar insects possess. Be that as it may, I am an insect-watcher, and have thus some tales to tell concerning a few that have aroused my interest.

When I take my walks abroad in early Spring, just as the leaves of the Wild Arum have unrolled their arrowy margins, I expect to discover on a sunny southern bank, or perchance crawling across my path, the sombre form of the Oil Beetle. This species may be distinguished by its deep mourning attire, the lengthy, segmented abdomen, and short wing cases. If you pick the insect up, apt evidence will be forthcoming as to its popular English name as drops of oily fluid will be exuded, and the unwary person will cease acquaintance with the creature straight away.

I have watched this early Spring rover eagerly devouring the fresh green Arum leaves, and have seen it enter the heart of a wayside flower for the purpose of depositing its eggs within. When the grub is hatched, it stays in its environment until a Bee comes along, pollen or nectar gathering, and then contrives

to get entangled among the hairs on the Bee's body, so as to be carried along to the latter's home. Having arrived there safely, the Meloë grub bides its time, until the Bee deposits a supply of tasty food for the sustenance of a Bee grub yet to be, and the hymenopterous insect is so occupied at the cell that it does not notice the grub of the Oil Beetle craftily slip into the cell in which an egg of the Bee is already deposited. Then the Bee seals up the cradle. This is Meloë's opportunity, for it at once eats the Bee's egg out of the way, so as itself to become the sole tenant of the hexagonal nursery. A further food supply is near at hand,



FIG. 48.—OIL BEETLE.

and this is greedily devoured until such time as the Oil Beetle grub is ready to pupate, which operation is performed in the Bee's cell. In due course Meloë emerges as a perfect Beetle, and by tearing away the sealed cap of the cell, operated by means of the strong jaws, it is soon able to find its way out of the Bee's citadel, and is then ready to forage along the sunny southern bank, where earlier in life it awaited the Bee's coming.

Field Crickets sing to me in our Hertfordshire hedgerows and grassy meadows when I am cycling, or walking, home of a Summer evening. I know exactly where to find them in the season of the year, and thereby hangs a tale which may now be told.

A note in a local contemporary was to the effect that, when giving a lecture entitled "What Shakespeare saw in Nature," Sir Edward Sullivan said that the writer of an anonymous article in the *Quarterly Review* several years ago was wrong in all his



statements except the one in which he wrote "there are no Crickets in Shakespeare's meadows." Sir Edward is reported to have said: "It was quite true there were no Crickets in his (Shakespeare's) meadows, or anybody else's meadows. Shakespeare put them where they should be—by the fireside."

Upon reading the paragraph referred to above, I had the courage to find out Sir Edward Sullivan, and point out to him in a polite way that he himself was in the wrong, if the newspaper report in question accurately represented what he had stated. Shakespeare may not refer to any Crickets in his meadows, and may refer only to the well-known little beast which chirps by the fireside, but surely there were Crickets in the meadows in Shakespeare's day, as well as by the fireside, just as there are Crickets in the meadows, and by the fireside, now. The fact is, there are several species of British Crickets, but among them there is only one which is an indoor resident! The outdoor Crickets on the British list are for the most part of rare occurrence, but there is one species—a black fellow—which is very common in our Hertfordshire grass fields and hedges, and will surely be known (at any rate, by sound) to many country dwellers.

Sir Edward was, as one might expect, as courteous in his reply as I was in pointing out the discrepancy which had apparently arisen, but for the life of me I cannot tell even now where we are over this critical (I had almost been tempted to write cricketal) question. This is what the genial Irishman says in his letter of reply: "I am aware that there are such varieties of the Cricket as you mention, but I dealt only with the animal as known in Shakespeare's time. It was then a dweller by the fireside. The meadow variety was then known by another name. The statement of the *Quarterly* reviewer would have been quite as effective, as bearing on the subject, had he said 'There are no aeroplanes over his meadows.'"

Now to tell the candid truth, I don't exactly know where we are! Sir Edward writes of varieties, when, of course, it should be species, but that, perhaps, is a license which is often allowed. A species of Cricket undoubtedly dwelt by the fireside in Shakespeare's day, but it seems equally certain that other species dwelt in the meadows, though probably, as Sir Edward says, "the meadow variety was then known by another name." That, however, does not affect the matter so far as I can see, and there, for the present, I propose leaving the conundrum which I set out

to solve, but which has become more involved (at least so it seems to me), as the riddle has been worked out.

It appears, by the way, that Professor Sir Walter Raleigh, among other eminent authorities, has approved of the long-forgotten article in the *Quarterly*, which was written, it appears, to prove that Shakespeare "knew nothing of Natural History, saw nothing in Nature, and wrote practically nothing about either." Though it may not have been known in the reign of Elizabeth that there were Crickets in the meadows, they were

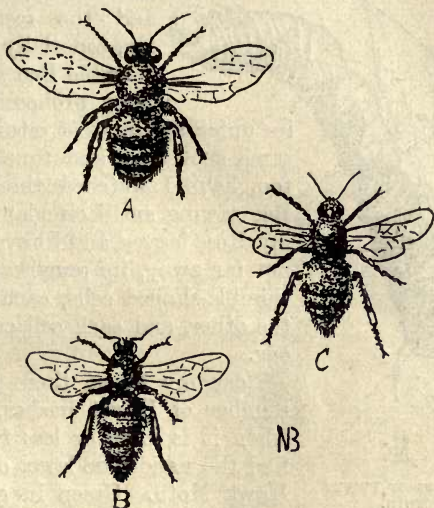


FIG. 49.—HONEY BEES: A, DRONE, B, QUEEN, C, WORKER.

no doubt there, although unmentioned by the immortal bard. The fact that Sir Edward states that "The meadow variety was then known by another name," seems to prove this!

My grandfather was an amateur apiarist, and, as a boy, I was always interested in watching the worker Bees at the hive, or gathering pollen from the early Crocuses. This was my first introduction to the Hive, or Honey, Bee, and I have had a warm place in my affection for it ever since those days of long ago. The sight of the first worker Bee in Spring enthuses me, and I have noted the date of its first appearance for more than twenty years.

Of the wonderful life history of these co-operative insects it



is not necessary to tell, for the fairy-tale of the Queen, the industry of the Worker, and the use of the Drone are well understood.

I have watched the Wild Bees, too, the large Humble fellows, whose drowsy monotone is one of the most delightful of country sounds. Very often I stumble across a large Humble Bee, which has taken so much nectar from the flowers that he has become stupefied. I love to watch the Bees at the Sallow in Spring, the Bramble blossoms in Summer, and the Michaelmas Daisies

in Autumn. Even the Bee-mimics, Hover Flies and the rest, fascinate me, especially the curious Humble Bee Fly, with its long proboscis. I note

its unfailing habit of returning to the same spot time and time again. So, too, have I watched the Leaf-cutter Bee sawing small circular pieces from my Rose leaves, and I have discovered, not far away, its remarkable series of thimble-shaped cells, each fitting into the other, and each cell containing an egg.

Near my house there are a great number of Privet bushes, and there, when it is more or less full grown, I find the handsome larva of the Privet Hawk Moth. Green in general body colour, its sides are richly ornamented

with stripes of heliotrope and white, and it bears on the hinder part the curved "horn" so characteristic of the larva of Hawk Moths.

I delight in watching the Humming Bird Hawk Moth as it hovers, Kestrel-like, in the air, thrusting its long tongue into the heart of a Honeysuckle blossom, or the pale yellow flower of the Evening Primrose.

The first Brimstone Butterfly, fresh from its hibernating quarters in Spring, spells ecstasy for an all-round-the-year chronicler, and later, when the Buckthorn leaf-buds are showing, I watch the female depositing her eggs.

The Orange-Tip is another favourite Butterfly I never pass by without observation, and I associate it with the pale Cuckoo

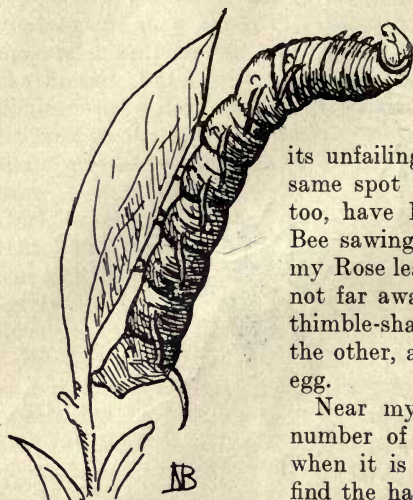


FIG. 50.—LARVA OF PRIVET  
HAWK MOTH.

flowers of April and May, and the rather disappointing yellow blossoms of the Hedge Mustard, which come to maturity when Flora's gaiety knows no bounds, and Nature's living mosaic in the fields is almost impossible to piece together.

Stinging Nettles I delight in for several reasons. The plant's anatomy, its physiology and communal instincts, its use to man, bird, snail, and insect, make a strong appeal to one steeped in the nature-study of any given animal or plant, but I am also enamoured of the Nettle because in Spring and Summer it gives to the woodland where I daily wander, a green chaplet which is refreshing as I meander along the well-trodden path bordering the Nettlecolonies. Then again, it is the favourite food plant of the furry larva of the Tiger Moth, which, even now I am grown up, I rear in a "cage," so as to witness the change from larva to pupa, and the final emergence of the perfect Moth from its skittle-shaped shroud. The change from one state to another is carried out in double-quick time, and must surely be one of the most rapid series of metamorphoses of any British insect. The "woolly bears," as the larvæ are called in some districts, are greatly relished by the Cuckoo, as also are those of the Drinker Moth and Oak Eggar.

Beetles, either turned up from below ground when digging in the garden, or from underneath a log or boulder, are great friends of mine, and I much admire the handsome male Stag Beetle clad in his rich chocolate-coloured coat of mail.

One day I watched an interesting courtship between the two sexes of this species. It was a simple country comedy, with only two actors upon the great stage and one person in the audience,



FIG. 51.—TIGER MOTH.



but it was full of interest. The female appeared to ignore the overtures of the antlered male, and, at last, out of sheer desperation, the male caught hold of the former and carried her away triumphant.

To see a large Stag Beetle in flight is an entertaining experience, and, when witnessed for the first time, makes a lasting impression. One day I saw a Long-eared Bat battling with some creature in mid-air. The combat lasted for several minutes, but it was not until a battered Stag Beetle fell at my feet, still alive but thoroughly exhausted, that I was made aware of the cause of the Bat's encounter.

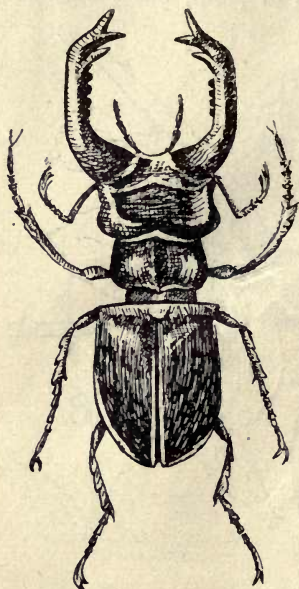


FIG. 52.—STAG BEETLE.

The Cocktail Beetle, or Devil's Coach Horse as it is also called, never fails to engage my attention when it scuttles across my path, and sometimes I am fortunate enough to watch a company of Sexton Beetles interring the dead body of a mammal, or bird, with an untiring energy, which, for insect folk, is really extraordinary. These must be reckoned among the sanitary agents of the countryside, and it is certainly true that much of Nature's hygiene is due to their industrious efforts.

But, perhaps, of all the insect legions that populate earth, air, and water, the fascinating tenants of the nearest stream, or wayside pond, can be studied to best advantage, as they can be kept in an aquarium, and are thus under constant observation.

Although he must be kept by himself, owing to carnivorous tendencies, the Great Water Beetle (*Dytiscus marginalis*) is a source of great interest. This species makes itself quite at home in captivity, but precaution is necessary, as unless the top of the receptacle containing the specimen is covered with small mesh gauze, escape is most likely to take place. Having wings, this predatory creature of our ponds and streams can fly through the air, and, being peculiarly well adapted to an aquatic life, it

is also thoroughly acclimatised in water, and can also crawl overland. Thus it is free of all three elements.

Every now and again, if watch be kept on the surface of pond or aquarium, *Dytiscus* will be seen to rise for the purpose of taking in a fresh supply of oxygen, and at feeding time the introduction of an earthworm will provide ocular demonstration of the strong jaws which this crocodile of insect life possesses.

In the same pond as the Great Water Beetle, there are smaller inhabitants closely allied. The Whirligig Beetles provide a fund of amusement as they career round and round on the surface

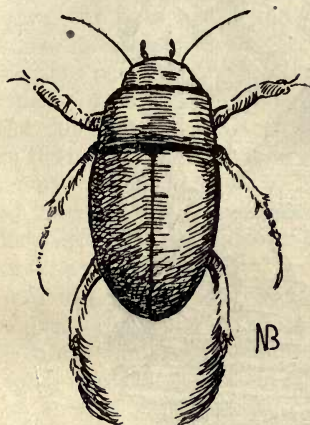


FIG. 53.—GREAT WATER BEETLE.

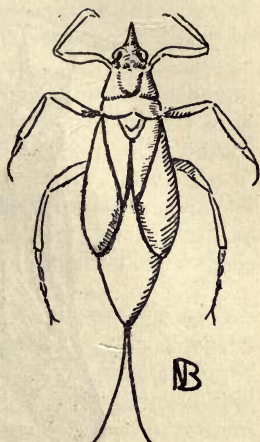


FIG. 54.—WATER SCORPION.

in never-ending circles, and, if the sun is shining, their bodies are lit up with a bright, steel-coloured coat of mail. The long-legged Water Measurers are also surface dwellers in the adult state, but I next want to introduce you to the Water Scorpion. It is first cousin of the always-engaging Water Boatman, and is a Water Bug of carnivorous tastes. Its breathing apparatus is situate at the extremity of the tapered body, and, when a new supply of air is required, the insect comes to the surface, protrudes its "tail," and then dives into the mazy depths beneath. As a rule, it remains hidden among the mud at the bottom of stagnant water, but, in spite of its ferocious appearance, the Water Scorpion does not tear its prey to pieces as one might suppose, but is only able to suck the juices from its body.

Many of these aquatic insects, including the Water Boatman,



puncture their prey, and introduce into the wound thus made a poisonous saliva, which serves the purpose of either paralysing, or killing, its victim outright. Even a fair-sized Minnow may thus be despatched, and, when the Frog, Newt, and Toad tadpoles are abundant in Spring, many suffer from the depredations of this water creature.



FIG. 55.—DRAGON FLY EMERGING.

I have only space at disposal to mention one other insect I have watched, and it happens to be the most alluring of all. I refer to the dandy Dragon Fly. The handsome form and amazing aeroplaning of the adult is known to many people. I have actually seen it "loop the loop," to use an aeronautical term, an evolution in the air which is perfectly wonderful, but it is the Dragon Fly's emergence from an ugly larva to maze-winged imago which is such an entrancing story. It is a parable by itself, and as such may well serve as a benediction to this chapter. As it was one of the first insects which came under my observation when I went a-fishing, so shall it be the last under review in this section.

I never realised in boyhood's days, as I do now, that this reveller in the hot July sun passed through such a remarkable change from the time when its very shadow sends a shudder through the water in which it at first dwells, for, armed with a powerful mask, which it shoots out to secure its victim, and strong jaws, it is, as a larva, almost a match for any other creature of similar stature. It propels itself through the water by means of a siphon-tube running along the whole length of the body, and, as it grows, so it casts its old larval skin, which is almost an exact replica of its present self. But the time comes when the watery home must be vacated, for a change is manifest in the once active larva. It feels weary and ill-at-ease. It possesses a desire to know something of the great world beyond the limits of the wayside pond in which it has passed so many profitable hours. Others of its fellows have succeeded in making their exit from the depths beneath, and its goggle-eyes have become blurred as the one left behind tried to follow them in their upward movements. One emancipated brother, and then another, promised to return to the forest pond to tell of the world above, but, as Mrs Gatty has so fascinatingly told us in her memorable parables, never a one came back.

At last, all was ready for the great journey to the light and air above. Almost inactive, the weary nymph—for such it now is—climbs the stem of an aquatic plant, and, having anchored itself, remains motionless. It needs rest from its exertions, and, as it rests, the influence of light and air, and the mysterious thing called life within, bring about a change preparatory to the great awakening.

All being ready, the moment of new birth is heralded, for there is a sudden jerky movement, a complete somersault is turned, the thorax of the old nymphal case splits asunder, and, where there was one, there now appear to be two distinct forms before us. Have our eyes deceived us? The truth is that the one is the old nymphal skin, or case, complete almost of itself, and the other, as the stumpy but quivering wings disclose, is the pulsating body of a new creature destined to play its part in the economy of Nature. With enraptured flight it takes to wing, and skims, unsteadily at first, but gaining courage “step by step,” over the green mantle of the silent pool in which it passed the greater part of its existence, and of which it is now freed, so as to career on unerring wings, backwards or forwards, through the air, until death recalls it to Mother Earth.



## CHAPTER IX

### TREES AND FLOWERS

SMALL wonder need exist as to why almost everyone admires a fine tree, for we learn that the Greeks of old saw a Dryad in every one of them. Since the dawn of civilisation, men and women have been intimately associated with trees, and, in the morning of the world, long, long ago, they were closely connected with them. Primeval man lived in trees. To him they meant home, refuge, and strong tower. As times changed, and men left their wooded fastnesses, they were still foresters, and, to-day, we are in Letchworth Garden City planting thousands of young trees, the fruit of which will be gathered by future generations. This reafforestation of desolate areas of land should be state-aided, and not left for private ownership, more especially as our countryside was so made bare of trees by the memorable blizzard of March 1916.

When men lived in the woods, trees made the deepest impression upon their powers of imagination. A tree to them was more than so much timber, a dumb, motionless thing void of life, for men of old realised it was a creature of sentient being, all powerful in its healing properties, and capable, moreover, of inflicting dread punishment upon the neglectful and scornful, or those who did not offer up sacrifice to it. Men even refused to step upon the shadow it cast, for they recognised its powers of governing rain and sunshine, storm and tempest. Trees were also, as they still remain, guardian angels of the wild creatures of the forest. Women of old revered them, to men they brought well-being and prosperity. Through their aid the crops were made to grow, the herds to increase. They became men's Gods. Men worshipped them, offered silent prayer unto them, and to trees men have even sacrificed—men.

When later in our Island story men built castles, fortified towns, and other strongholds, tree-worship went out of fashion. Even the sacred Oak, which was at one time the centre of our religion in England, and which the Druids were joyous to see

even in Winter, when it was bushed with green by the growth of the parasitic Mistletoe, was superseded by the rites of Odin, and the heroic Gods of our Saxon forefathers. And these, in turn, were followed by Christian faith and practise. Trees were, as men's minds became more developed, and their thoughts deepened, regarded as God's handiwork, His house, His temple, rather than the Deity Himself. But, although the old Gods were dead, their dwelling-places remained, and in the Middle Ages the power of trees on the imagination was very strong. If we read a mediæval tale, we shall find that the scene of action is almost sure to be in the woods and forests. It was through a wood that King Arthur rode with his merrie knights; lovers, hermits, gamekeepers, outlaws, bold Robin Hood and Jack o' Legs, lived always in the woods of old, and have been immortalised in stirring ballad and vivid romance.

The love of trees is born within us. We still look up to them for inspiration, to catch some infection of their immense patience, and placid happiness. Yet it is disconcerting to notice that, to most people, one tree is as good as another, when, to the student, each wayside, or woodland, chieftain has a marked personality. The Oak is endowed in our national ballads, poetry, and story with immense powers of strength. It does not require much imagination to speak of it as King of the Forest, when at the height of its glorious reign, and, in its declining years, as an aged monarch. Beyond this the Oak, as I look at it to-day, fresh-leaved, and full of pendent male catkins all aglow with life, images to me a noble soul, chivalrous, just, unbending.

An hour or two ago I took shelter from the rain under a green canopy of overhanging Beeches. The scene, looking upwards towards the blue sky, was one to which no written description could do ample justice. In the foreground, to the left of a pyramidal Horse Chestnut, now lit up with rich candelabras of blossom, was a fallen Oak, its huge, gnarled limbs recumbent upon the spot where, as a tiny acorn, it was once, perchance, crushed underfoot. There he lies prone in an English park, and I look at him with bended head in sheer reverence, for he has fought a good fight, he has sheltered many a weary beast, bird, and winged creature, has never made an ignoble peace, and now, in death, he sheaths an undishonoured sword.

Thus does the Oak well deserve its title of our national tree. If I were an artist I would picture a wide-spreading Oak, and, among its branches, I would paint the figure of a mighty King.



His royal mien should be pourtrayed by broad shoulders, and muscular outstretched arms, so as to match the Oak's great horizontal limbs. The bosky foliage should be represented by the King's curling hair, the huge trunk by a mighty torso, and the far-spreading roots by the long folds of his royal mantle.

I look to-day at the Venus of the trees, the Ash, or the grace



FIG. 56.—BLACK POPLAR LEAF AND CATKINS.

and beauty of the Birch, which has won for it the title of Lady of the Woods. Both these trees, and the suavely graceful Beech, are best impersonated by gentle women, but the strange powers, scents, sombre mysteries, and dark evergreen foliage of the Fir, reveal him as a beneficent wizard. The Pine, by his bold and storm-tossed air, is the soldier of the frontier. It is said that sometimes we cannot see the wood for the trees, but, quite as often, we do not see the trees because of the wood. To see the individuality of a tree it is necessary to study it alone, where it has every

opportunity of expanding to the full, and is in no way impeded by its fellows. I want to see the same tree all the year through, and season after season. There is hardly a day in my life when I do not look up at a giant Poplar which stands, sentinel-like, in a little copse where the Nightingale loves to hide, and from whose dizzy heights the Tree Pipit delights to gambol. I compute that I have looked at that immense Poplar (I hesitate to refer to its species, or variety) over three thousand times, and yet to-morrow I shall not consider my day complete unless I renew acquaintance with this favourite giant again. I watch it all through Winter, and observe the sticky pointed scales which protect the catkins hidden within. It blossoms, like its cousin

the Aspen, before it comes into leaf, and I anxiously watch for the scales to unroll, and the first catkin to appear. I look forward with pleasant anticipation to its full-flowering, when, to my amazement, the magical happens, for, within twenty-four hours, the long red-stamened catkins develop, and, as the wind springs up in the night, the tree is soon entirely stripped of its wealth of male blossoms. A pang of disappointment steals into my heart, for I again see the tall spreading Poplar almost as bare as in mid-Winter, and now 'tis Spring; but I had forgotten its foliation when I was tinged with remorse, and soon, with the coming of May, the long-stalked, heart-shaped leaves begin to peep out from their snug cradles. Then, as they develop, and the wind blows, the whole tree whispers a soothing song of hope, of Summer's happy days, and Autumn's harvest moon.

Other trees are friends of mine, the Maple, Elm, Horse Chestnut, Sycamore, and Fir. The Elm is a characteristic tree of North Hertfordshire, and, although it has a bad habit of sudden snapping, or of not being able to withstand a blizzard, this heavily-foliaged monarch of our country lanes, which, we are told, wandered to us from Italy, is a romantic figure even in Winter, or when, in early Spring, the tufts of crimson flowers proclaim to the passer-by that all is well for the great awakening.

When I look at an Elm, that tall bosky figure, I see a shepherd who is piping the airs of Italy, though, perchance, the tree is English-born after all. Tall and graceful, with closely curling hair, shaggy cloak, and bushy leggings, featured with gentle dignity and calm, there he stands, and in the grateful shade his flock is resting from the noonday sun.

The pastoral side of English life has, during the centuries, been embodied by the gracious figure of the Elm; it has become an essential part of our national possessions, for it flourishes on many a village green, and our lanes and waysides would be altered beyond recognition without its familiar presence. Of this we had ample evidence in the great blizzard of March 28th, 1916, when whole lane sides and favourite meadows were swept clear of the Elm, and which for centuries had found an abiding place in homely Hertfordshire.

This tree's welcome green in the heat of Summer, and its golden fleece in Autumn, its quiet homeliness, so reminiscent of rural England, and, withal, its refined dignity, are features which those who are brought into daily contact with it cannot fail to notice.



I love the Sycamore's broad canopy, and its clusters of drooping flowers; the sweet scent of the Lime, and the monotone of the busy Bees as they sip the nectar from the honeyed flowers, make a strong appeal to my senses of sight, smell, and sound. The sturdy Hornbeam, with its decorative catkins in Spring; the beauty of the Wild Cherry as it stands out in bridal array from its woodland companions; the stolid magnificence



FIG. 57.—COLTSFOOT.

of the Evergreen Holly, and the real old English personality of the May; the bunches of seeds upon the spreading branches of the Wych Elm; the massive grandeur of the old Willow under which I dearly delight to meander, and in whose fissured bark Jenny Wren has this year placed her home, these are all my companions of sunshine and shade. I make an open confession that I am a tree-worshipper Winter and Summer, not for the valuable timber which they render, although realising such importance, but for their elegance and stateliness, for their usefulness to creatures of many kinds, and the friendliness with which they inspire all those who have eyes to see, and hearts to understand.

My rambles among trees and flowers have brought untold joy into my life, and I search, year by year, for the first golden disc of the earliest sunflower of the Spring in the person of the Coltsfoot. I watch it craftily pushing its way through the cold clay soil in which it flourishes, and, as the flower heads open one by one, they decorate the bleak hillside, or the nearest railway cutting, with a living raiment of gold. Later, I watch the fruiting time, as the Coltsfoot first hangs its head, and then, all being in readiness, it shoots upright, and discloses to view a silky-white pappus. Later still, the Coltsfoot-shaped leaves appear, and, by that time, Nature is all agog with life, and one hardly knows which way to turn for fear of missing some hidden treasure. It

is then that I love to get away from the broad highway and follow the grass-strewn track, or, better still, to leap over the old stile, and gently saunter across a meadow footpath where no man shall say you nay. As Marvel has written :—

“ There are simple footpaths that I remember loitering through day after day, in the rural districts of England, with a sense of enjoyment that never belonged to saunterings in the alleys of Versailles. A man does not know England, or English landscape, or English country feeling, until he has broken away from railways, from cities, from towns, and clambered over stiles, and



FIG. 58.—WHITE VIOLETS.

lost himself in the fields. Talk of Chatsworth, and Blenheim, and Eaton Hall ! Does a man know the pleasure of healthy digestion by eating whip-syllabub ? Did Turner go to Belvoir Castle Park for the landscapes which link us to God's earth ? What a joy and a delight in those field-footpaths of England ! Not the paths of owners only ; not cautiously gravelled walks ; but all-men's paths, where any wayfarer may go ; worn smooth by poor feet and rich feet, idle feet and working feet ; open across the fields from time immemorial ; God's paths for his people, which no man may shut ; winding—coiling over stiles—leaping on stepping-stones through brooks—with curves more graceful than Hogarth's—hieroglyphics of the Great Master written on the land, which, being interpreted, say,—

“ Love one another.”

I stoop down to earth to caress the sweet-scented Violet



nestling in its grassy bed. So shy is it that only by gently parting the grasses am I able to discover the blue or white blossoms, and insects, desirous of pillage, must, of necessity, play hide and seek before they can pay their compliments to odorata.

Let the March winds blow ever so strong and cold, there is almost sure to be some sheltered spot where one can find the Violet. The flowers hide themselves in a most crafty way until Jack Frost has finally bidden us adieu. Then they advertise their wares to greater advantage; but, as a matter of fact, this favourite plant has also what are known to the botanist as cleistogamous flowers. These are small and inconspicuous, and are produced later in the year; and, in addition, they are fertilised without opening.

Perhaps the pure White Violets appeal to one most as one searches for them in the first days of Spring, silent, sweet-scented ambassadors of brighter days to come; but a colony of Blue Violets on a sunny bankside is something to be remembered by the wayfarer who is tempted out of doors at the uprising of the sap.

The poet Wordsworth writes of hedgerows as

“Little lines of sportive wood run wild,”

and a saunter there during early Spring is sure to reveal many vegetable treasures to the possessor of the seeing eye.

Outdoor, or field, botany may be carried on successfully all through the year, for even in Winter crafty seedlings may be observed thrusting their fresh green coats above the earth's surface, the childlings of the year. Winter, too, is a capital time during which to study twigs and buds, and one is able to become more intimately acquainted with trees and hedgerows when they are disclosed in all their nakedness.

Along a sunny southern hedgebank in Spring one is sure to espy the golden chalice of the Lesser Celandine, or Buttercup, as it is more generally called. At a season when wild flowers are at a discount, it is pleasant to notice the burnished, star-cut petals of this modest little wildling, as well as the glossy leaves which so richly decorate the blossoms, and give them such a beautiful setting.

That the Lesser Celandine is a splendid coloniser is well known. It exhibits, at all events, a wonderful habit of co-operation, plant embracing plant, so as to cover every available inch of

ground in order that the leaves and flowers may secure their full share of sunlight and air, before other more robust growths spring up and choke them.

As a rule, the Celandine is fond of damp spots. It succeeds as well in the shade as in the open, and the single terminal flowers light up the surroundings in a truly delightful way. It was one of Wordsworth's favourite flowers, and doubtless attracted the poet's attention because of its resurrection from the cold earth when Nature was still mostly "marking time." One interesting feature concerning this familiar plant is that our ancestors christened it Pilewort ("wort" being Anglo-Saxon for plant) because of the small tubers found upon the root.

If we step into the meadow where King Dandelion has held undisputed sway for so long a time, a sight not easily forgotten will meet our gaze. If ever there was a successful co-operator in Nature, the Dandelion is one. Its deep-seated, milky roots, strong leaves, silky parachutes, composite flowers, and rapid growth, are all features of interest, to say nothing of the plant's beauty, and its usefulness to man and beast.

The leaves are jagged on the edges, and this accounts for the popular English name of Dandelion, the same being derived from the French *dent de lion*, meaning tooth of lion. The strap-shaped florets, which make up the sunflower-like head of blossoms, are each complete in themselves. All the essential organs of reproduction are there, and those who pay constant heed to the operations of Nature will need no reminder as to the wonderful transformation scene which takes place in Dandelion meadow when these vegetable aeroplanes are ready to go globe-trotting in their coquettish search for a new home upon Mother Earth.

If we wander by the streamside, or in the damp places adjoining, another great sight in the Spring pageant will meet our gaze. I refer to the flaring cups of the Marsh Marigold. This beautiful wild flower is a larger cousin of the Lesser Celandine already described, as the general form of the whole plant at once displays. The fine golden flowers are admirably thrown off by the large, leathery leaves, and the leaves and stems contain an abundant supply of water, so that they may be prepared to withstand an attack of drought.

The Nettles are making rapid headway now—both Dead and Stinging, and among a colony of these plant-warriors, I one day chanced to see a very pretty scene. Two delicate, sweet-scented Narcissi peeping from their woodland bed was an un-



expected pleasure; and though they owed their presence to introduction by man, they harmonised beautifully with their surroundings, and gave a magic touch to the quiet bit of cover in which I wandered on that eventful morning.

Some scenes one has witnessed are indelibly inscribed upon one's memory, and in Spring, when the Nature lover is met at every step with some new treasure, certain episodes are bound to stand out from the rest, which are really never entirely obliterated.

Not far away from the two sentinel-like Narcissi, I espied, on the aforesaid Spring day, another sight of unmarketable beauty. I refer to the Wind Flowers, or Wood Anemones. The enthusiastic observer of outdoor life is so inclined to wax eloquent respecting the particular phase of study he is engaged upon at the moment, that it is difficult to realise what really is his favourite, or most striking, theme; but to unexpectedly come face to face with a whole wood full of dancing Anemones, so frail and chaste, so graceful and courteous in their stately bow, is one not easily forgotten.

When the trees and bushes are mostly leafless, a first glance at the Anemones in their countless thousands, coyly curtsying to one another and to us, is apt to give one (and especially an inexperienced footfarer, who is totally unprepared for such a sight) a sudden shock. But the shock, needless to say, is a pleasant one, and when the first symptoms are over, the Nature lover will find it difficult to tear himself away from the quiet acre of beauty which lies all around him in the favourite wood he knows and loves so well.

In the meadows, too, a rare floral pageant is being prepared for men to gaze upon, and what is equally, if not more, important, for other creatures to feast upon. Our English meadows are a sight for the Gods when presented to us like a cloth of gold by the yellow chalices of the various species of Crowfoot. At such a time, one looks for, and expects to see, the first butterflies toying upon the wing, and the Swallow skimming across the meadow in exhilarating flight. A typical pastoral scene in rural England of the season of which I write.

Some species of Crowfoot (or Buttercup) do not grow in the meadow, making their homes in the nearest pool, or stream, but those upon land are wonderful examples of colonisation, and, once they have got a firm hold, it is difficult to eradicate them. The Bulbous Crowfoot is especially troublesome in this respect, and

you may know it without examining the root, by means of the greenish-yellow sepals, which turn back on to the main stem, and probably act the part of sentries by forbidding unwelcome insect visitors from creeping in the golden palace unawares, without offering anything in return. The story of Nature is largely one of "give and take." Such seems to me, in a sentence, one of the great laws which rule and control the web of life.

I am tempted to relate that the Primrose vistas in the belt of woodland I have visited since I was a boy are, to my mind, and especially at the time, among the fairest sights I can ever hope to see.



FIG. 59.—GREATER STITCHWORT.

The Primroses, which so richly decorate the leafy, woodland bed in early Spring, are among my earliest recollections, for I remember how, as a family of Nature lovers, we always used to respond to the call of the woods when Primrose time had come again; and it is probably because of old associations that I have such a warm place in my affections for this favourite flower.

Linked up with childish memories, too, is the Greater Stitchwort, for the same sunny hedgebanks, along which I wandered as a boy, still have their full complement of the pure waxen-like flowers of this common plant. It receives its generic name of *Stellaria* from its starry heads of blossom, and, when at its best, presents, with the abundant Hedge Parsley, one of the fairest sights in all England.

Traveller's joy, Wild Clematis, or, as it is more popularly



called, Old Man's Beard, is a familiar plant to me when at its flowering height. The yellowish blossoms have a quiet, refined beauty all their own, and the way in which the plant masses itself over and along a hedgerow, is not the least interesting feature concerning it.

It appears to thrive wonderfully well on chalky soil. Later in the year, the feathery awns make their appearance, silky in texture, and of delicate workmanship. Then it is that Old Man's Beard deserves its popular and old-fashioned name, and at Christmas time it is in great demand for the decoration of churches and other places.

Attached to each feathery awn there is a small egg-shaped seed, and it is obvious that this plant largely depends upon wind to distribute its fruit. The seed has a distinct peppery taste, but whether, in spite of this, it is partaken of by birds, I have not yet been able to discover.

It will probably cause some amount of surprise to the casual observer when it is stated that Traveller's Joy belongs to the same order of flowering plants as the Common Crowfoot, or Buttercup, indeed, in the classification of British flowering plants having two seed leaves (called dicotyledons), the plant under notice holds the lowest place. Our British floras invariably begin with *Clematis vitalba*, as Traveller's Joy is known to the botanist, and hence there is more than one reason why it is entitled to notice here.

A favourite chalk dell, to which I am in the habit of repairing when in search of specimens for use in Nature Study classes, was recently a veritable picture of wild flowers. For the most part, the plants consisted of remarkably large clusters of Bitter Candytuft, the rich blue and purple of the curiously-named Viper's Bugloss, the delicate yellow racemes of Wild Mignonette, and a few stray Poppies. The colour effect was really magnificent, and, as seen towards evening, with the sun sinking in the west, it was a sight worth walking some distance to behold.

One of the most accommodating wild flowers which I delight to notice, from early Spring to mid-Winter, is the Cow Parsnip. Its umbrella-shaped heads of small flowers, each worthy of close examination under a pocket microscope, make a brave show, and are usually well tenanted in Summer with the Cardinal Beetle, which, presumably, finds a store of nectar acceptable to its palate. When the plant goes to seed in Autumn, I like to watch the Sparrows and other Finches busily collecting the

flat receptacles that encase the precious germ within, and, as I brush past the dignified Parsnip, towering above its fellows, I unconsciously dislodge many of the seeds, and thus aid in its distribution.

In some districts its cousin, the Yellow Parsnip—the wild ancestor of our Garden vegetable—is a familiar feature of the countryside, and, in some seasons, reaches an astounding height. The pale yellow flowers give a pleasant touch of refined colour to the Summer haunts which I frequent, and I have recently discovered what appears to be an undescribed variety of this wildling, with deeply-cut leaves, apt evidence of the work that remains to be carried out by those who are willing to co-operate in the new field botany.

Summer produces some wonderful floral pictures. The fields of ruddy Sainfoin are a sight never to be forgotten, especially towards evening, when the western sky is flushed with gold, and the dying rays slant across the meadow. One must look towards the sun to get the full effect of the scene. If a visit be made earlier in the day, busy Bees will be discovered among the radiant blossoms, and Painted Ladies coquet over, and around, the Sainfoin community in sheer delight.

But to-day the flaring red Poppies among the corn are a veritable feast of colour. There is probably no finer effect among our wild flowers than the Scarlet Poppies in the corn, and a recent tour through North Hertfordshire, and a part of the adjoining county of Cambridgeshire, convinced me, and my companions of the chase, that this was indeed a Poppy year.

When one examines a seed case of the Poppy, that delicately-fashioned urn-shaped vessel, which holds the fruit secure until the time has arrived for it to be scattered, wonder is expressed



FIG. 60.—COW PARSNIP.



that there are not more Poppies than there are. Millions of the small seeds must never come to maturity. If they did, we should, during the Summer, live in Poppyland, surrounded everywhere by these bright-liveried soldiers of the vegetable world.

Doubtless several kinds of birds—and Finches, in particular—feed upon the seeds of the plant in question, and thus help to keep down the numbers of this farmer's pest, but there must be other agencies at work of which we are not cognisant.

I have certainly seen more Poppies in Hertfordshire and Cambridgeshire than at Cromer, Overstrand, and elsewhere on the Norfolk coast, immortalised by Clement Scott as Poppyland.

Interesting experiments have been made with regard to the vitality of seeds buried below the soil, and I have myself seen fields cut up for building purposes which had not yielded a single Poppy within living memory. Soon after the soil was moved, however, a host of Scarlet Poppies sprang into being, and, before the buildings were erected, the loose soil around was clothed with a red robe fit for an Emperor. The fact is that many seeds which are buried in the earth retain their vitality for several years, and it only requires light, air, and moisture to set them germinating, as the advent of thousands of Poppies in a grass meadow is apt evidence.

Unsettled weather appears to suit the Wild Mignonette, for, at the time of writing, this pretty plant is a great feature of the countryside, especially in chalky districts, where it flourishes exceedingly.

When in the Fens, I was rather surprised to find whole fields almost covered with the soft, greenish-yellow racemes of this plant. When thus seen a most pleasing effect is produced, and in a county, such as Cambridge, which is so well supplied with water, the wild plants attain a very considerable size. If the Mignonette of our gardens, which, unlike the wild species, is beautifully scented, could be grown so luxuriantly as the plants which may now be seen on almost any country ramble in North Herts, then, indeed, a splendid addition would be made to our garden flowers.

In the heyday of Summer, when the Roses are all a-bloom in our gardens, and Nature is one continuous feast of delight, then I hie away to a Bramble bush to find, as Elizabeth Barrett Browning says, that—

“Earth's crammed with Heaven  
And every common bush is afire with God.”

I am never weary of studying this scrambler, as Darwin christened it, and there is always something of interest to record concerning it at all seasons of the year. Although it successfully throttles other plants, and even goes to battle with the sturdy Hawthorn, and usually comes off victor, I must confess to a great liking for the Bramble as a Nature Study subject. Plentifully supplied with prickles, it is able to obtain and preserve its place in the sun, and, from many points of view, serves a useful purpose in life. An established Bramble bush, in which the branches are intertwined so as to form an impenetrable barrier to human folk,



FIG. 61.—BRAMBLE.

is a sheet anchor to various birds which nest, or rest, there. Among its evergreen leaves they are admirably protected, and, when in luscious fruit, there is an abundant food supply near at hand. The silky flowers, so prettily ornamented with a bunch of stamens within, are very delicate, the five petals proclaiming this countryside stalwart as a member of the Rose family. I like to see it in a hard Winter best, when it loses practically all its leaves, as I am then able to observe to better advantage the interlacing branches, the framework, as it were, over which the living covering is so craftily spread later in the year. The plant climbs, creeps, runs along the ground, and hangs down from the summit of its host, as if to remind the wayfarer of the mass of vegetation of some tropical forest. One does not notice these things unless a special look-out is kept, but there will be some, at least, among



my readers who will bear with me when I state that no other British plant throttles everything which it entangles as does the Bramble. It is so desirous of making its holding more secure, that it sends upwards, and then down, adventurous branches, which, on touching the soil, root at the tips, and thus become fixed in the soil all round the parent plant. Other branches are told off on an exploring expedition, to stay, perhaps, a neighbouring branch of Thorn, or Elder, from approaching any closer to Blackberry corner, and nought but the hand of man can stay its course. It throws out huge trailing branches, like the tentacles of a giant Octopus, and these attain a length of several feet in one season. There is no doubt that, as a Nature Study subject, the Bramble is one of the best examples with which I am acquainted, and if I may take my rambles along a Hertfordshire green lane, so characteristic of the county, where Bramble bushes border the hedgerow on either side, I realise that I am participating in an environment which, as a haunt for wild life, could hardly be bettered.

Our shy birds, such as the Blackcap, Whitethroat, and Garden Warbler, greatly relish a Bramble entanglement in which to place their frail nests, and it is only when the plant has lost its leaves in Winter, that a census can be accurately taken of the homesteads which were hidden among the wealth of foliage earlier in the year.

As soon as the first severe frosts arrive, then, sure enough, the leaves come toppling to the ground, and change colour before one has time to realise that Autumn has placed her foot well on the threshold.

The Hedge Maple is one of the first plants to change the colour of its dress, and already there are to be seen patches of guinea-gold in the hedge opposite my study window.

Hard by, the rich dark purple leaves of the Dogwood are to be seen, and as the berries have long since disappeared, eaten by hungry birds, whose names are unknown to me, this shrub has suddenly come into prominence again.

A fine spell of weather experienced in September is doubly welcome, and one day I spent some time watching the Red Admirals and Peacock Butterflies enjoying a pilgrimage from flower to flower. The plant in request was the aromatic Water Mint, and, as the rich velvety insects settled down to work on the pale mauve flowers, the effect was one not easily forgotten. Curiously enough, the Red Admirals do not seem to have visited

the Sedums in the garden this Autumn. Why is this? The pink heads of blossom of the Ice Plant, as the Sedum is also called, are, as a rule, an unfailing attraction to the Red Admiral. As a matter of fact, I have grown these decorative plants for several years for the sole purpose of attracting this handsome insect in the Autumn. This year, however, it has failed me.

Has the reader noticed how quickly the Starlings and other birds make a raid upon the berries of the Elder when they commence operations? In a wet Summer birds have plenty of moisture and succulence, but when a dry September sets in, then the Elderberries come in extremely useful to our feathered population, and they soon make short work of them.

Birds are not the only bipeds which make a raid upon the Elder, for during my wanderings I meet several parties of women and children gathering the fruit, for the purpose of making Elderberry wine. That this is a good, wholesome drink I can myself testify, and I remember that some years ago I always had a hot glass of it when making a Winter call upon a friendly game-keeper.

The syrup-laden berries of the Purging Buckthorn are also in request during the Autumn. I cannot discover to my satisfaction that birds are fond of them, but Norton Common, and other districts, have invited gangs of women and girls to gather the black, juicy Buckthorn berries for the purpose, as I understand, of conveyance to Hitchin chemists, to whom they are sold at the rate of 2d. per lb. I have no complaint to make at the gathering in of the wild fruits of the earth—the appetising Crab-apple jelly upon the table is a testimony to my feeling in this respect—but I do strongly object when whole hordes of outsiders visit a district, pull the trees and shrubs to pieces in a most disgraceful way, and throw down the branches when the berries have been taken from them.

Surely these country operations can be conducted without giving offence to one's neighbours, and there is no need to introduce the spirit of vandalism, which, to say the least, is rampant enough at all times.

The Starling, by the way, is not the only bird which has a sweet "tooth," for I was recently watching a soft-billed bird, the Lesser Whitethroat, feeding upon Elderberries. I had just seen the bird catch and devour a fine green caterpillar, and, having stored that away successfully, it took up its position in an Elder bush, and, by way of dessert, feasted upon several



berries to its evident delight. There is no doubt that some of our Warblers do take soft fruits in the Autumn, but they do not perpetrate much harm, and their good deeds far outweigh their bad ones.

My botanical excursions take me, each year, to the haunts of various kinds of Orchids. One season I noted down as many as sixteen different species, and on one memorable journey observed nine species in blossom. One of my treasured recollections is the sight of a colony of White Helleborine in a little Beech copse, where the Wood Wren sings its somewhat monotonous song. I lit upon the copse unawares, not knowing what it contained, and the sight that met my gaze will never be effaced. The tall, dignified Helleborine was at its best, and the greenish-white, flask-shaped flowers gave a glow of light to the otherwise sombre garb of the little coppice.



FIG. 62.—BEE ORCHID.

I have sought the heart of an Oak wood, where Herb Paris, or True Lover's Knot, flourishes, to find the Bird's Nest Orchid, and in the damp meadow adjoining I have discovered many varieties of the Spotted Orchid, as well as the Pyramidal, and Frog.

And the little copse on the chalk escarpment is peopled during Summer with Fly Orchids and Roman Snails. I know not which I best like to discover, but find some excuse to pass that way whenever I can.

In the old woods at home I always knew where to find the first groups of Early Purple Orchids, just over the bank bordering the deep ditch where the Primrose legions gathered, and I have tramped many miles across country in order to see the Bee Orchid rearing its proud head among the luxuriant herbage of a ride, cut through a wood. To-day this Orchid flourishes exceedingly within a stone's throw of my front door, but its days are numbered, as civilisation penetrates into its wild fastnesses.

As a change from the meadows, woods, and downs, I ramble,

as opportunity offers, along the banks of some enchanted stream, for there I meet with a different fauna and flora, which, to an all-round field naturalist, brings unfeigned delight.

The refined grace of the Flowering Rush, and Great Water Plantain, are old companions of mine, and I love to tread near the secluded retreat of the Water Mint so as to stir up the pleasant aroma which this plant offers.

The nearer bosom of the water is gracefully silhouetted with the fairy chalices of innumerable blossoms of Water Crowfoot, an aquatic cousin of the flaring gold of the one I know better in the green meadows, and I stay to listen to the wind rustling the Rushes and Arrowheads, until a Sedge Warbler warns me that I am encroaching upon its chosen habitat, and a Reed Bunting tinkles out its impetuous little song.

I have almost risked life and limb in scaling the saddle of Goatfell, away in the Isle of Arran, in my efforts to discover some new plant treasure, such as *Salix herbacea*, our smallest British Shrub, no taller than a Daisy, or to see in their own homes the Northern Bedstraw, Bog Asphodel, Grass of Parnassus, Bog Pimpernel, Tutsan, and Cotton Grass.

I have sought for (and found) the carnivorous Sundew on Dartmoor, and feasted my eyes in glorious Devon upon the living patchwork of the purple Heather, and the fire of the flaming Western Furze, perhaps the greatest floral pageant I have ever witnessed anywhere during my expeditions among trees and flowers.

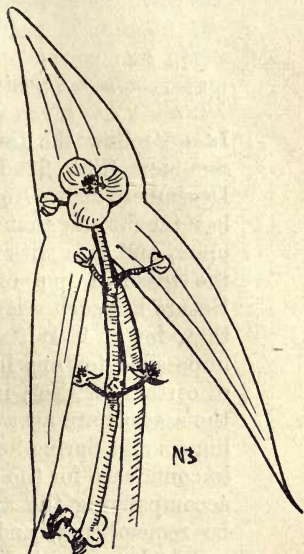


FIG. 63.—ARROW HEAD.



## CHAPTER X

### THE MAGIC OF THE SEASONS

IF we follow the Calendar, Spring commences on March 21st, Summer June 22nd, Autumn September 23rd, and Winter December 22nd. Now, my lifelong experience as a field naturalist has taught me that these Calendar dates are not to be relied upon, and it is with real difficulty that one is able to point out the seasonal line of demarcation that exists. The clock of Nature has such a large dial, and the hands go round so quickly, that, for at least six months out of the twelve, it is well-nigh impossible for one individual to tell the time with any degree of certainty. Yet, in spite of this word of warning, I find that the seasons are always faithful, though sometimes, when Winter lingers and Spring hesitates, it needs a stout heart to go forward in confidence for the coming of the May. In any case, the magic accompanying the arrival, be it early or late, is something to be remembered, and this is especially so to those who have watched constantly all through the dark days of Winter for Spring's assured awakening.

The story of the circling year is entrancing in its constant variety, and unwearying patience. The study of outdoor life is such a continuous round of pleasure that the keen observer hardly notices the marking off, as it were, of one season from another. This is most noticeable, of course, between Spring and Summer, and late Summer and early Autumn. Between Autumn and Winter, again, there is difficulty of differentiation, for, as I watch the stumpy male catkins developing upon the Hazel, even before the nuts have browned in the mellow days of September, I know that Winter has not come, but that evidence of Spring is here! So, too, in mid-Winter do I discover evidence of that which is to be, for, in December, or early January, I undertake a pilgrimage to find the scented Winter Heliotrope in full blossom, or watch the young Lambs frolic round their dames.

There is often—as in the memorable Winter-Spring of 1916-7—

a great struggle for supremacy between one season and another. Never, perhaps, in the history of the world have men and women so looked forward to Spring and Summer as during the year in which I write. They had passed through the severest Winter for twenty-five years, and, if my information is correct, the latest Spring for five hundred years. Be that as it may, the Spring of 1917 was a long time coming, for, up to mid-April, we experienced stern Winter, with its sweeping snowstorms battling with the sunlight, and few among us could tell when the conflict would cease. Some almost doubted if Spring *would* come again, but the devoted Nature-lover never lost heart, even if May Day had almost arrived before better weather was experienced, and then came—Summer!



FIG. 64.—SHEEP AND LAMBS.

The countryside was, in the first four months of 1917, in a bedraggled condition, owing to the heavy falls of snow, together with sleet, frost, and wind. In the first week of April I rambled day after day in search of bird migrants due from oversea, but there was no response. How could one expect otherwise with the countryside as bleak and bare as on a February morning? But, to those who had not lost faith, the transformation came, and, with the clothing of the earth, the overdue bird visitors returned, for by then the insect legions were abroad, and it was safe for these feathered voyagers to come back to their native land. A fortnight of glorious Summer weather early in May



brought magic to bird, beast, insect, and plant, to man it meant hope and the upward look. Nature was eventually more lavish than ever before in my lifetime, even though the Blackthorn, usually associated in our minds with February or March, did not first come into blossom until May 5th, when the Maythorn itself is, as a rule, due to crown the hedgerows with its wealth of flowers. The Blackthorn was surely never finer than during 1917, when, for the most part, the milk white bloom appeared with the leaves, a rare occurrence in rural England worthy of note.

The Oaks burst into flower and leaf in a single night, and my favourite nooks, that wore such a desolate appearance earlier on, were transformed into green alleys, along which it was again sheer delight to wander. It really seemed as if Nature was determined to give of her superbest, to temporarily threaten failure, and then, having tried our faith, she sent forth a hasty summons to all her creatures to stir from their long Winter sleep, and make the old Earth glad again.

I cannot keep pace with the magic of Spring. It is all too vast, too absorbing, for one to assimilate, so great is the rush that takes place when this genial Fairy arrives with her fair courtiers. I know not which way to turn for fear of missing some newly-risen wildling, and there must be some limit to individual effort.

Nature has taught me something of the magic influence of the Spring-cleaning of the countryside, of her law of hygiene. I seem to realise what we owe to the prince of Spring cleaners, the sun, when it penetrates into the darkest corners of the earth, and makes them beautiful, but it all takes place so stealthily that I am mystified at this yearly resurrection. I perceive the crafty seedlings clothing a hedgeside, or waste place, with their newborn leaves, I see the catkin-bearing trees with their complement of flowers before the leaves appear. This is an example of unselfishness, a self-imposed sacrifice to benefit the race rather than the individual. I watch a favourite hedgerow renew its fresh green livery. Its coat is, at first, a mere patchwork, as little flushes of life appear here and there, but the full garment is worn before one has time to realise that the greatest magician in the world has taken the stage, and is continually deceiving the astonished audience as to exactly what is to happen next.

I go to my favourite meadow. I stoop to notice at closer quarters the first Daisy-flower of the year. Then, when I can place my outstretched fingers over seven of them at once, I

know that, according to Hertfordshire folk lore, I need fear no man, and then, a day or two afterwards, when I chance to pass that way, the whole meadow is studded with the wee, modest, crimson-tipped flowers, producing an effect of which only Daisies are capable.

I visit a sunlit pond. The water is cold, dark, and uninviting, but there is life in and about it, and I know that things are stirring. Experience teaches me this, and I realise that patience will bring its own reward; that soon the pond will respond to stimulus, and life will pulsate with creatures innumerable from muddy bottom to mirrored surface.



FIG. 65.—FROG.

I note that a few Frogs are already making their annual pilgrimage to the pond, and it is remarkable to observe how they centralise here from the surrounding fields, woods, and ditches. I watch them migrating to this pond every Spring, and I have developed such a strong habit of climbing the fence to get a better view of the haunt of the rare Water Soldier, that I rarely pass that way without falling into this irresistible temptation. The pond itself is always worthy of a visit, even in the depth of Winter, and, although I have only known it for about ten years, it is already associated in my mind with some of my happiest memories. I shall always remember the croaking of the Frogs in Spring, the toothed rosette of leaves of the Water Soldier, the early Blackcap, the Great Reed Mace, and what one day appeared to be an aged Bream, sunning its body near the surface.



I go to a belt of woodland. All is quiet, sombre, death-like. A Jay shrieks, or a Woodpecker makes a loud tapping, which strangely disturbs the peace. The trees are stolid, the earth beneath still bears its plenitude of fallen leaves, which rustle as we tread upon them, until we feel that in such a sacred fastness, and under such conditions, we must not invade the place because of its quiet sanctity.

I meander by the stream. It is still early Spring. The water rushes impetuously on its mad scamper towards the sea. It is strangely different to the scene we witnessed last Summer, and shall yet again. A Moorhen clucks as if she resents intrusion upon her chosen haunt, a Water Vole "bobs" suddenly, and sends a shudder coursing through our veins. Can it be that yonder mud-strewn bank, with its debris brought down by the Winter torrent, will be clothed in after-time with the ruddy glow of Willow Herb, tall spikes of Purple Loosestrife, and giant heads of Hemp Agrimony, among which the Sedge-bird will later play hide and seek? The Alder and White Poplar alone proclaim that Spring is on the threshold, for the catkins are making headway, and a solitary Sallow bush, in the watery copse on the opposite shore, is flecked with silver, waiting patiently for the sun and the gentle breeze, the Bees and Flies, and the Willow Wren.

I hear an unfamiliar bird note. A long Winter has passed since I heard it last, and now it strikes strangely upon the ear. It is just a simple bugle call consisting of two, and sometimes three, notes. Joy steals into my heart, for that feathered messenger has come to tell me of brighter days and sunnier skies, of flowery meadows, and bosky woods. I go on my way rejoicing, for I know from old associations what the presence of that little mite in the willows means to me, but I am unsatisfied. I begin to moralise about the magic of it all. It is strangely elusive. My brain is in a whirl. I want to get at the mind hidden beneath the feathers. A few days previous this ambassador of Spring—the Chiff-Chaff—was wintering on the northern shores of the Mediterranean, waiting for some strange impulse belonging to bird life before venturing upon its perilous journey, crossing oceans and continents unhindered in a frantic endeavour to return to the spot where, last Summer, it reared its downy brood.

The little incident mystifies me. I want to follow the bird from the time when the chill of Autumn the previous year warned it to seek a more congenial clime, and I am anxious to see it in

its Winter retreat, and to accompany it back again to the homeland. I do not understand how these feathered wanderers find their way unaided from pole to pole. I know not how the familiar Swallow, which I ringed last year, should be able to return to its old haunt, when, in the meantime, it had journeyed as far away as Natal, to pass the Winter days.

I listen to a Mistle Thrush. His song is doubly welcome now, when so few birds are singing, but his notes proclaim both message and mystery. I cannot elucidate the strange fascination of this bird music, each species with call, cry, or love-song to itself, and I find myself always looking forward with abundant hope, never wearying, and yet unsatisfied.

I witness the solicitude of parent birds for their young, I view their homesteads, I observe their laws of morality and cleanliness, and I am at a loss to ascertain the inner meaning of it all. And yet I watch the same succession year by year with unabated vigour. The Cuckoo is calling within a hundred yards of the open study window as I write, but its wandering voice never fell so pleasantly upon my ears as on this magical May evening. Last night, and during the early hours of this morning, the thunder crashed, vivid lightning lit up the trees and bushes as I have never witnessed before, and the gentle rain from Heaven descended upon the parched earth. Through it all the Cuckoo courageously told his plaintive tale, and ascending Larks were face to face with Nature's loud artillery at break of dawn, still buoyant and undismayed.

I saunter in my garden when the early flowers are due to warn us of Spring magic. I note the first green dagger of the Daffodil, I further observe the first plant in crumpled bud, and then the first signs of yellowing. I look forward with pleasant anticipation to such a Spring as I have never known, and to the Daffodil's awakening. I lovingly caress the first venturesome blossom, then another, but, presto, with the advent of the sun, soft skies, and balmy air, I find my border goldened with the dear, dancing blossoms, and in a few days they have come and gone. They will return to cheer me another Spring, but that has yet to be.

I watched the first Pear blossom open its dimpled eyes one May morning, but before I could realise it, or keep pace with the magic of it all, the whole tree was bridled with flowers, and now they, too, have departed all too soon.

I walk leisurely along my little rows of cordon Apple trees. It seems but yesterday when I pruned them to encourage the



fruiting spurs. I looked with longing eyes at the prospect of a plentiful supply of blossom buds. The next time I ventured that way the sweetly-scented petals had all uncurled.

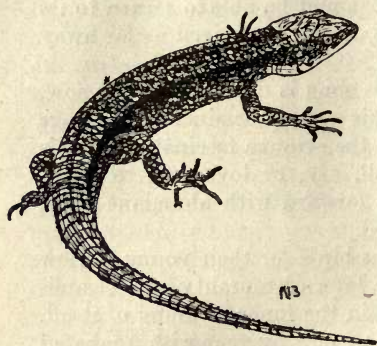


FIG. 66.—COMMON LIZARD.

Quite early in the year I stood with kindred souls in a secluded wood, and was brought into touch with the matchless beauty of the scene. Anemones and Primroses vied with each other in luxury of dress. The vivid green of Dog's Mercury gave to the woodland bed a magic touch, and these kindred souls, toiling all the week in workshop, factory, and office, went on bended knees so as to be in as close communion as possible

with these, the Poet's darlings. It was an Oak wood studded with Hazel bushes. The blue sky above, the songs of ascending Larks in the adjacent meadows, the lilting strains of a great-hearted Thrush, the whimpering of a tiny Shrew Mouse, and, on an open patch of dry ground, the scuttling of a Lizard, all added variety, which Whittier pronounced as charming. Even as we grow older amidst such an environment we find:—

“Life's burdens fall,  
Its discords cease,  
I lapse into the glad release  
Of Nature's own exceeding peace.”

It seems that, when participating in Nature, *memories* of happy days spent in the depth of the country are as pleasant as actual experiences. You cannot have one without the other, and it is the combination of the two which brings its own reward. There is always looking backward as well as forward. The motto on my desk calendar to-day is after my own heart and reads: “God helps us with our headpieces and our hands, as well as with our souls.” The author is George Eliot.

This magic of the seasons cannot be easily defined. I have tried many times to speak of and write about it, but have never satisfactorily succeeded. Occasionally, inspiration comes, and then one is able to build up the entrancing story fairly successfully, but, however futile one's efforts may be, there always

remains the thirst for knowledge, and constant search for truth.

It is Summer time now. The whole woodland resounds with the songs of birds, and Nature is at her best. The stern hand of Winter, the halting footsteps of Spring, are all forgotten now that the Hawthorn is wreathed in blossom, and Elder, Dogwood, and Privet scent the morning air. I never remember the Maple so abundantly laden with honeyed flowers, nor, as one might expect, insect visitors so frequent. There is magic in every square yard of territory, and one's observation ground is so unlimited at this season of the year, that one hesitates to go far afield for fear of losing touch with the closer operations of animal and plant life. It seems only yesterday that I noticed the Bryonies, both Black and White, peeping through the respondent earth, and now both plants have ascended towards the light and air, the former by means of twisting its sensitive stems either round one another, or a neighbouring plant, the latter as a result of its tendrils, which form a living spiral. Sometimes, the Black Bryony entwines its new growth around the dead stems of the previous year, and thus secures aid in life through death.

The Black Bryony has sharp-pointed, heart-shaped leaves, which have a glossy surface. The leaves and flower buds are packed close together in infancy, but, as the snaky head develops, and the stem elongates, the necessary organs separate, and eventually occupy such a position as will bring light and sustenance through the agency of the leaves. Festooned with coral-red berries in Autumn, the leaves having already withered, Black Bryony brings a rich feast of colour to the place it chooses for a home.

White Bryony is a pretender, or rather, I should say, its English name is misleading, for it is not a Bryony, but a member of the Cucumber family, the only wild representative we have. Its rough leaves are lobed, instead of shiny and heart-shaped, greyish at first, and very hairy, so as to be protected from late frosts and the ravages of caterpillars. The berries are red, but they lack the richness of the other species mentioned. In addition, they are round instead of egg-shaped, and do not bear the gloss so characteristic of *Tamus communis*, which acquires its name of Black Bryony because the rootstock develops large black tubers.

Both these climbing plants are constant companions of my rambles, and I delight in watching them stealthily improving



their stature until they have obtained, by dint of great industry, a prominent position in the hedgerow, or bush, where they have become thoroughly established.

The bank bordering the deep ditch—but recently void of plant associations, now made gay with a wealth of wild flowers—is a study of itself. First came the seedlings, Goosegrass, young Parsley, Chickweed, Stitchwort, Woundwort, and the rest. Later on, the scene was hardly recognisable, so great was the change, as crowds of plant warriors took part in the struggle for supremacy.

Where the Celandine starred the pathside of this pleasant hedgebank, only a stone's throw from my home, and along which I wander day by day, it is in Summer peopled with tall Hedge Parsley and Woundwort, the latter rough to the touch and possessing a pungent odour. In the damper portions of the bank, the Sweet Cicely flourishes, and may at once be distinguished from the commoner Hedge Parsley by the mealy patches upon the graceful, fern-like leaves. I first met with this plant in Scotland, from whence I gathered the long-ribbed seed, and scattered it in this southern fastness, where it evidently finds the conditions suited to its prosperity.

Magic is in the bushes and herbaceous plants which constitute the hedge itself. Here Buckthorn, Hawthorn, Maple, Dogwood, and Wild Clematis present an impenetrable barrier, and in Spring the Brimstone Butterfly comes sailing along the hedgerow in search of Buckthorn for the purpose of depositing her eggs, or a buccaneering Humble Bee introduces its drowsy monotone as it industriously pursues its sweet pillage. I do not understand where these Butterflies, such as the Peacock and Small Tortoiseshell, hibernate during Winter, or how they are able to withstand such severe weather as we experienced during 1916-7. A bright, sunny day, tempered with a warm atmosphere, will tempt them from their hiding places in early Spring; but it is not until the Small Blue, Orange-tip, Small Copper, Wall Brown, the Ringlet, Meadow Brown, Grayling, the Skipper, and other Butterflies are a-wing that insect life reaches high-water mark. All these possess marked characteristics during flight. The burnished wings of the Small Copper always attract my attention in Summer, as this gay little fellow flirts before my eyes along a well-trodden path, settling just ahead of me out of harm's way, and yet permitting a fairly close approach. The Wall Brown has a somewhat similar habit, although it is a larger species. It spreads its velvety wings wide open upon the

ground, rather than settle upon a wayside flower, but to see the Ringlet to advantage one must saunter where the Bramble is in blossom, for which this Butterfly shows great liking. It is not a strong flier, and is easily observed, fluttering in front of one as if a leisured existence was more enjoyable than hurry-scurry.

To find the Meadow Brown, a hayfield, decked with a luxuriance of grasses and other wild flowers, should be visited, a resort also relished by the Skipper, which has a habit of settling clumsily upon herbage in a lackadaisical way, reminding the onlooker of a moth rather than a butterfly.

At night time moths and other insects hold high revel, and at such time the magical effect of darkness becomes pertinently manifest when one rambles along a country lane. There, one will hear the drowsy hum of the Dor Beetle as it pursues its nocturnal wanderings, and, if the door, or window, of the house be left open, it is most interesting to take note of the strange visitors which will be lured inside by a strong light. One hears a whirring, a sudden collision, and a fall. On stooping down to ascertain the identity of this uncanny creature of the night, one may discover the dismembered



FIG. 67.—COCKCHAFER.

body of a Cockchafer. It is a Beetle, inseparably associated with a sultry evening in leafy June, and is dearly relished by two other night revellers in the persons of the Bat and Nightjar. The latter bird is one of the few species that gives voice after dusk, and its vibrating song—if such it may be called—is of curious utterance when listened to among the quiet woodland glades, and open spaces, where this hairy-mouthed Summer migrant passes the hours of darkness. It rests during the daytime, but when the sun has heralded the last embers of a dying day, it steals from its hiding place, and commences its aerial exploits in pursuit of insect prey. It is difficult to follow its weird form in the gathering gloom, but, if the light is good, the bird will be seen to swoop with amazing swiftness, and every now and again it brings its wide, clean-cut wings over its back, and bangs them together with such effect that a loud noise, as if a pistol shot had been fired, is produced. Then the bird ceases its insect-catching, and rests upon a neighbouring Oak, crouching, length-



wise, rather than crosswise, along the branch, churring all the time. Its rattling notes ring out loud and clear in the night air, and if, as sometimes happens, more than one of these birds is thus occupied, the whole woodland is electrified with eerie sound, which, when listened to for the first time, produces a weird effect to those unacquainted with creatures of the night.

Walking home in the warm glow of a Summer evening, one may espy, under the shelter of a bush or hedgerow, the luminous light set up by the stupidly named Glow Worm, which is, in reality, a Beetle. Whilst the female is wingless and distinctly grub-like in appearance, soft to the touch and prominently segmented, the male is winged, and can fly whithersoever his fancy takes him. The female is the brighter lamplighter of the two, and, when a number of these insects, so truly reminiscent of rural England, are discovered, one's evening ramble is made much more enjoyable. A Glow-worm walk home in the cool of night, after a hot day, is one of the pleasantest experiences that can fall to the lot of any wayfarer, for he is thus brought into touch with the magic of the countryside during the refined stillness of the evening hour.

Be not deceived, however, as to the Glow Worm's soft iridescence in the gathering gloom, for there are luminous Centipedes which scuttle over the ground, leaving behind them soft trails of light, which, as the fast-moving creature crosses a path, produces an effect far different to the stationary and brighter signal of the Glow Worm Beetle.

Perhaps the magic of the seasons is most acute, when in mid-Summer, one stands in a dense wood under the welcome shade of heavily-foliaged trees. It is an oppressive air. There is not a breath of wind. Even the Aspen leaves refuse to quiver. Not a bird sings. Few insects are upon the wing, except a stray reveller in the cool glades among the trees, and, when a noisy Ring Dove disturbs the peace, one has a rude awakening as the bird gets well upon the wing, and takes to the open country. Yet, round about us, there are countless animals and plants which, earlier on, were all agog with excitement, preparing for the carrying on of their race. Now all seems dull and lifeless. I do not like this awe-inspiring stillness of the woods in the height of Summer. Although magical, its quietude mystifies me, and my sensitive nature requires some stimulus, so that I may again be made glad. I know that the hands of Nature's clock cannot always move rapidly forward, and that a halt must

be called for respite, or the wonderful living machinery which sets this great clock in motion will be tired out.

I love best the Spring, or early Summer, when I can see animate Nature at work and play, when all living things respond to the call for action, and my own activities are more deeply stirred.

I do not forget the water-worn bridge which spans the River Gade, where an old Trout friend of my youth is always to be seen when the Mayfly is rising, for then I see Nature at her best. Swallows and Martins swoop over the surface of the stream, in a frantic endeavour to take toll of as many as possible of the airy insects which have just risen from the water. This wonderful Mayfly, which has so short an existence in the perfect state, has a remarkable life history, for it takes several years for it to pass through its complete metamorphoses, and I am at a loss to understand why, after so long a time in coming to maturity, it should only enjoy its little day and then begone. Its mazy wings of great delicacy, and the curious streamers on the tail, are objects of interest, as is also the really pretty larva, which can be observed to advantage in an aquarium at home. This larva lives in the water

as a voracious feeder for several years. Eating is to the Mayfly *as a grub* the keynote of its existence, as it is to all insects when in a similar state. When it has attained the adult form, it takes no nourishment at all, indeed, it does not possess any organs which would enable it to do so. Both these states in its existence may be regarded as separate personalities. In the one (the larval), an abundant supply of food is a necessary equipment for helping it to prepare for the next stage in its existence, and in the other (the adult), courtship and parentage are necessary essentials. The Mayfly's ambition as a grown-up insect is to mate, and thus reproduce its kind. For

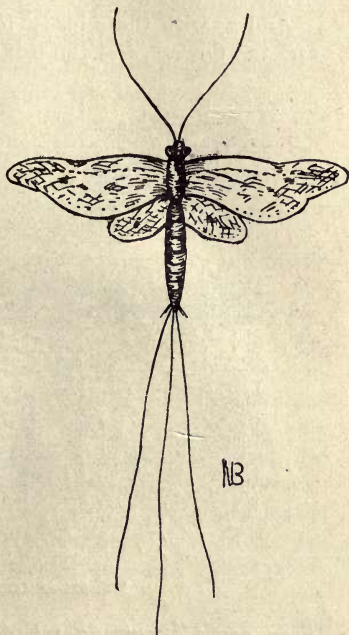


FIG. 68.—MAYFLY.



this consummation it lives and feeds as a larva for a lengthy period, and, if it was possible for reproduction to take place other than in the adult state, it is reasonable to suppose that, in process of time, this ephemeral creature would fall into obsolescence. Surely the story of this one insect is sufficient, of itself, to engage the devotion of a lifetime, magical and mysterious as it is, full of interest and wonder.

And as with these insect folk, so with the birds, and the trees, and the flowers, and the fish in the nearest stream. I watch the



FIG. 69.—A COLONY OF COW PARSNIP.

bare earth becoming re clothed with plants which have been familiar to me these many years, and I am still content to wait, and watch, and see. I whisper, and they respond. I coax them to deliver unto me a few of their many secrets, but I do not want to pull them to pieces to count stamens and pistils, only to see them growing as sentient beings, in their own homes. Perchance after a dry spell, a fire, accidental or otherwise, has swept across my favourite hunting ground among the dead herbage in late Spring, and Nature's fresh green livery has not yet been acquired. The sight of the fast-gathering flames brings a pang of regret into my heart, and I fight the fire fiend as best I can in order to save the surrounding bushes from destruction. I may, or may not succeed, but a few weeks later I discover how

bountifully Nature has healed the scarred wound, for, as I visit the scene of recent destruction, I find, to my joy, that fresh plants are springing up in every direction, that already there is barely a trace of the charred embers, and that Nature's prodigality is more remarkable than ever. All is now green and Springlike on the patch of earth that was firestricken a few weeks ago. Fleabane, Teasel, Dock, Water Mint, Crowfoot, Violet, Silver Weed, Thistle, Knapweed, Burdock, Ragwort, bunches of Rushes and Grasses, and giant leaves of Cow Parsnip, the latter crowned with large flower-heads, have all brought renewed life and energy. It is difficult to realise that this is really the fire area where, but recently, we battled with the flames, for now it has become a pageant-corner over which the tall Black Poplar does sentry-go, and the Tree Pipit sings sweet music as if in thanksgiving for the new vegetation which has enabled it to frequent the old nesting haunt of bygone years.

Life, after all, is Nature's most exquisite invention, and death is her expert contrivance to get plenty of life !

Near by, the Oaks are in full leaf, and as it is not far from May 29th, I remember the incident in Boscobel Wood in 1651, and look up towards the tree tops to see if the spongy excrescence of the Oak Apple is there. Early in January a small insect crept from her gall-home upon the roots, and ascended the bole of the tree. She bore no wings, and had perforce to climb the dizzy heights. Arriving at a favourable branch, leafless and bare, except for the brown scales protecting the tightly-packed leaves and flowers, she lost no time in depositing her eggs at the extremity of the branch where the buds were most congregated. Then she died, but her mission was fulfilled, and in due season the eggs hatched. When this happened, the Oak was more advanced, and the irritation caused by the presence of parasitic larvæ meant a rush of sap to heal the wound, and eventually the appearance of the Oak Apple. If we procure one of these, and cut a section through it, we shall discover several little cells in which a legless grub is secreted. When this grub reaches maturity as the perfect insect, it comes forth, either as winged male, or wingless female. The latter climbs down the trunk up which her mother ascended, bores her way into the ground, finds the roots, punctures some holes in them, and deposits her eggs. Then *she* dies. These eggs eventually hatch into larvæ, round excrescences in the form of galls are formed upon the roots, and from these the wingless female (but no male), about which I



have already written, emerges, so as to add her quota to the life cycle of this familiar object. It is an apt example of parthenogenesis, or alternation of generation, in the world of insect life, and one of the most entrancing stories with which I am acquainted.



FIG. 70.—OAK APPLES.

And thus, the seasons come and go, with unfailing regularity, and alarming rapidity. But there is magic all the time, whether it be early or late in the year, when, for example, the Cowslips are studding the green meadows with sheets of gold, or the coy Anemones are gracefully curtsying to one another in the nearest woodland glade. Or, maybe, the fields are in stubble, and coveys of whirring Partridges rise in front of us. Stray Poppies, and Corn Bluebottles, and gay-clad Marigolds, peep out here and there, having acquired a new lease of life. Or, perhaps, it is a Winter's day, when the berry-laden hedgerows are besieged with hordes of hungry Fieldfares and Redwings from the far North, or Golden Plover are disporting themselves in the damp meadows.

To know and appreciate Nature we must seek her in all her phases, at all seasons, and learn from her in all her moods. As I have written elsewhere, and may here repeat, "Spring will summon her from her long wintry sleep; Summer will clothe her in all the colours of the rainbow; Autumn will herald the season of seed and harvest; Winter, eager to repay her for the loss of leaf and blossom, will softly spread over her a mantle of white, fleecy snow, and bid Jack Frost prepare a glittering crown to adorn her brow."

## CHAPTER XI

### HIGHLAND MEMORIES

It is a long time since I went to school, but, to the best of my recollection, a peninsula is a piece of land *almost* surrounded by water. If my memory is at fault, and my geographical knowledge unsatisfactory, I must crave the reader's indulgence. Howbeit, I am now holidaying upon a peninsula in the Western Highlands of Scotland.

The county in which I now find anchorage is Dunbartonshire. Most of the time-tables and guide-books will tell you it is Dunbartonshire, but that is an incorrect spelling, and the milestones alone seem to render the shire's name correctly. Dunbarton, as a matter of fact, is derived from the Gaelic, "dun Bretann," meaning "the Briton's Fort." The remarkably pretty little resort at which I am staying is known as Clynder, which comes from the Gaelic words "cluain dur," and which, being translated, means "Meadow on the Water." In view of the fact that this (1913) is one of the driest Summers within living memory in this part of Scotland, the "Meadow on the Water" is somewhat misapplied, for the water problem is, at the time of writing, one that concerns the natives very acutely. For more than a month not a drop of rain has fallen, though, to the north of us, the mountains around Loch Goil, Loch Long, and Loch Lomond, are often "up among the clouds."

Of course, we have no waterworks, and the supply must come either from springs or burns. The latter, though numerous, are mostly dried up, and the wee Brown Trout find it difficult to secure a suitable environment in which to take shelter, until such time as the welcome rain shall bring to them that which is necessary for their sustenance and well-being. All day long the lads and lasses make their way to a spring to the south of Clynder, at a little place called Strone, carrying water-bottles, tea-kettles, and pots and pans of various shapes and sizes, to secure a supply of one of the greatest necessities of life. We ourselves can hold out a good bit longer, but one has to be mighty



sparing, and a bath is, at present, a luxury. When the rain does come, we shall hear the rushing water close by the "Woodburn" demesne, in which I now reside, and see Scotland under another of its many aspects. Even a few moments brings a change over loch and mountain. That is one of the charms of the wonderful country in which I am now sojourning.

Clynder is on the western side of the Gareloch, the latter being derived from Gaelic words, meaning "Short Loch," in all probability as a contrast to Loch Long, which is a mile or two over the braes behind us. Immediately to the south is Rosneath Castle (not Roseneath), the Dunbartonshire seat of the Duke of Argyll. Close by the Castle, there are two very fine Fir trees (*Picea pectinata*), known respectively as Adam and Eve. Adam's girth is 21 ft. 10½ in. Eve is a little less than her illustrious husband, being 21 ft. 7½ in. in girth. These measurements were taken at a height of 4 ft. 6 in. from the ground. Rosneath comes from the Gaelic, meaning "a promontory." The ruins of the old Church go back, it is said, to Modan in 507. Beyond Rosneath there comes into view, round the bend of the famous Clyde, the residential resort of Kilcreggan (meaning "the church on the little crag"), and, almost adjoining these, is the smaller hamlet of Cove, meaning "a cave." At Cove there are some charming villas with fine gardens, but the great feature of interest is Knockderry Castle, the seat of Lord Blythswood. Looking across the Firth of Clyde from Kilcreggan, one sees quite plainly Gourrock, Greenock, and Port Glasgow, whilst to the south the glorious heights of the Isle of Arran are espied, with proud Goatfell frowning down on the lower reaches, granite monarch of all he surveys. The Island of Bute appears in the foreground of Arran, and then there is a magnificent stretch of Argyllshire, with Dunoon, Innellan, Hunter's Quay, the Holy Loch, Kilmun, Strone, and Blairmore, all plainly discernible.

The Gareloch is about eight miles in length, and about a mile or so across. On the opposite side of the water, we see the very pleasant and flourishing town of Helensburgh (from whence one can take a convenient trip to Loch Lomond), the smaller resort known as Row, but pronounced Roo, and, further north still, there is Shandon, with its fine hydropathic establishment. On our western side we have only two or three small clachans north of us, such as Rahane and Mambeg. Then we come to the head of the Loch, or Garelochhead. Truth to tell, I do not like Garelochhead. It is very disappointing. True enough, the view

looking down the Loch from Whistlefield is magnificent, the wooded banks on either side being a splendid setting for the gleaming salt water. But Garelochhead is dirty, and no place to sojourn in, except for an hour or two. At Portincaple it is different. On mounting the Whistlefield road, there comes quite suddenly upon the traveller one of the greatest sights in these parts. There are mountains galore ahead of us, many of considerable altitude. Two thousand feet may quite safely be mentioned as an average height. To the west we see almost below us the entrance to Loch Goil, to the north-east there is the continuation of lovely Loch Long. Bounding Loch Long on the other side, is Argyll's Bowling Green, or Glasgow's Highland Estate, as it is also called. As a matter of fact, it is a range of mountains of some fourteen hundred feet in height! I went down Loch Long on its eastern side yesterday. I first struck it near Coulpport, and from there to Cove it was an experience not likely to be forgotten. The scenery of the Gareloch is pretty, charmingly pretty, but at Loch Long it is majestic. Of course, Loch Long, as its name implies, is a longer sheet of water than the Gareloch, and the Argyllshire Mountains on the western side are truly magnificent in their rugged grandeur. Loch Long is wider than its cousin over the eastern hills, and, though I shall shortly be at Loch Lomond, my vote at present, in so far as the majesty of scenic effect is concerned, must be recorded for the first-named.

The Gareloch is not only prettier than Loch Long, but it has undoubtedly a better fauna and flora, and is much more pleasantly wooded. So far, my list of birds is close upon fifty species, several of great interest. Of these I shall have something to say at a later date. In the meantime, I am revelling among some of the finest scenery in the world. This is the land of cakes, of mountains, lochs, glens, and burns. It is also the land of midges!

The Scotch railways mightily facilitate travel in their country, for much of its success depends upon the invasion of visitors from over the border. The railway, steamboat, and coach arrangements are admirably conducted, and a little trouble taken beforehand will pave the way for comfort and convenience on behalf of the passenger. Having taken a tourist ticket from Letchworth to Helensburgh, I was able, on the production of my return half at the North British Railway Station in Glasgow, to secure a cheap return ticket to a little place called Mallaig



in Inverness-shire. There is nothing very remarkable in taking such a ticket—any fool can do that—but my point is that I was able to travel to Mallaig by any ordinary train; with a ticket available for sixteen days, for the modest return fare of 12s. 8d., a matter of some 300 miles for the return journey!

In Scotland the desire of the rail and steamboat companies seems to be to cater for their patrons in a more concerned way than in England, for one can break the journey at almost any place *en route*, and use even a back-dated ticket. That is, having undertaken to take a passenger to and from a given place, the Company loyally carry out their promise, without a host of idiotic restrictions, which in England hamper the passenger, and entail extra expense.

As we were on a peninsula, where no railway has as yet penetrated, we took the good ship *Lucy Ashton* to the head of the Gareloch, calling *en route* at the small hamlets of Rahane, Mambeg, and Shandon. Of Garelochhead I have already written. Suffice it to say, that a pleasant wait of half an hour or so on the platform at Garelochhead soon passed, and brought to us the West Highland train from Glasgow. Our reserved compartment needed no searching for, as the canny Scotch guard soon discovered the party of four for whom it was intended, and we were invited to take our seats. This day we were to travel to Fort William, break our journey there, so as to get a peep at the highest mountain in Britain—Ben Nevis—and then resume our travel the next morning to Mallaig.

To attempt a detailed description of the journey would be risking the impossible, for no sooner had we passed the quiet little station of Whistlefield, which is stuck up on the rocks hard by Loch Goil and Loch Long, than we entered a country of great magnificence. At the entrance to Loch Goil we recognised the spot mentioned by Thomas Campbell in "Lord Ullin's Daughter," but our attention was soon demanded by the beautifully wooded banks on the railway side of Loch Long. How this West Highland Railway was constructed is a mystery to me, for, in certain places, the line runs at a tremendous altitude by the side of the high mountains, with deep ravines, tree-laden slopes, and lovely lochs right below. The line is a single one. It curves and twists abruptly, snake-like, and one wonders what would happen if something went wrong. The train gives perceptibly first to one side and then the other, righting itself in a marvellous way. I am told there has never been an accident

since this line of rail was constructed, a testimony to the ingenuity of the builders.

The line hugs Loch Long more or less as far as Arrochar and Tarbet, striking inland a little until, towards the head of the loch, we are again at a high altitude, with the gleaming water several hundred feet below. As experienced from a rocking railway corridor for the first time, one unused to such things is bound to be a little perturbed, and I honestly admit it was the first time I ever felt nervous in a railway train! On pulling up at Arrochar, however, our nerves were strengthened, for, soon after leaving the little Highland station mentioned, Ben Lomond, as well as Loch Lomond, came in sight. The great aim of the constructors of this line of rail seems to have been to afford the passenger all the scenic effects possible, for the line hugs the bonnie, bonnie banks of Loch Lomond in a delightful way, and the wooded banks on the opposite shore appeal to the eye and the imagination in a way that cannot be set down in cold print. The reader will, of course, know how lovely Loch Lomond has been immortalised. I can myself testify that its beauties have not been one whit exaggerated. It is without doubt the finest Scottish loch I have seen. I shall attempt to describe at a later stage another trip I had to Loch Lomond yesterday, so, for the time being, must very reluctantly bid it adieu. In the meantime we are looking at Ben Lomond (3192 feet) from the railway carriage window. It towers above the loch like a huge cone of dark lead-coloured sugar, the clouds embracing it, and putting on a nightcap long before it is time to go to bed. We are so enraptured with Loch Lomond and its bonnie banks, with the Fir woods, which some recent storm has razed to the ground—with the majestic glens and mountain ranges now coming into sight, that we draw up unexpectedly at Ardlui at the head of the loch, before we realise we are at our next stopping place.

After leaving Ardlui, we were soon travelling rapidly northwards, and, as we steamed into the station at Crianlarich, I saw snow in the month of August for the first time. When one remembers that during these last few weeks I have been a pilgrim in a land which has experienced the greatest drought within living memory, the presence of snow on the sheltered crevice of a mountain will appear all the more remarkable. On the east side of Crianlarich station, there rises in stately grandeur the mountain of Ben More. It is 3843 feet in height, and, towards the summit, a large patch of snow could be easily discerned with



the naked eye from the railway station. This is probably the farthest south Scottish mountain which has snow upon it at the present time.

We stopped at Crianlarich some few minutes, both going north and returning, for this is the place at which one changes to take the western line to Oban. The last-named line runs parallel for some little distance with the Fort William and Mallaig rail, and to my mind the run from Crianlarich to Tyndrum, and then on to Rannoch, is one of the finest stretches on the West Highland Railway. Looking out of the carriage window, one can see the line skirting the mountain side for several miles. On the east side, the mountains rise sheer up from the line; on the west one sees a more or less barren valley beneath, with an odd farmhouse here and there. It was close by this point of my journey that I saw the largest flock of Sheep within my recollection. I first caught sight of them in the far distance to the north of us, but I imagined I was looking at whitish boulders, which are so prominent across Rannoch Moor, and which the geologist tells us were brought down by glaciers a few million years ago! As we approached more closely, it became evident that the nearest "boulders" were moving, and it then dawned upon me that the little specks dotted about the hillside were Sheep! I hesitate to speculate upon the number which constituted the flock, and I am not given to exaggeration, but I am certainly within the mark when I state that there were several thousands! Nobody was astir. Not a human soul could be seen high or low. The presence of such an army of Sheep, however, added a touch of life to the mighty country we were traversing, and we left the flock behind us with real regret.

As we struck westward, and came nearer to Tyndrum, there came into view on the east side of the rail the majestic mountain of Ben Lui, which is 3708 feet high, and one of the Grampian range which runs up country, south to north, with an apparent incline towards the east. I like Ben Lui. I presume it is one of the mountains which brings down water as a source of the great River Tay, for hard by the mountain in question, this river finds its source. Thence the river strikes out a distinct northeasterly course, emptying itself as the Firth of Tay not far from the city of Perth. As on a former visit to Scotland I crossed both over and under the famous Tay Bridge, near the city of bonnie Dundee, I congratulate myself that I have visited the beginning and the end of the famous river. My Scotch paper

tells me at the time of writing these notes that the River Tay is dried up in many parts, and at Blair Atholl, where, as a rule, it is not less than eight feet deep, one can walk dry shod along the river's bed !

Why I like Ben Lui is that I saw so much snow upon it. As a mere southerner it impressed me very much. Even as the train sped along—and the West Highland train attains a splendid speed at many points—I was able to count thirteen distinct patches of snow, all facing the exposed north. As we approached Tyndrum, and for several miles after leaving it, Ben Lui became more and more prominent, and the crevices containing the snow were plainer to see. At Bridge of Orchy station, an isolated spot of great loneliness, Ben Dowran, 3528 feet in height, rose like a giant upon our right, with Ben Vannoch (3125 feet), Ben Odhar (2750 feet), Ben a Chaistel (2897 feet), Ben Achallader (3399 feet), and Ben Creachan (3540 feet), all in close attendance north and south.

We did not stay long at Bridge of Orchy. Indeed, if my memory serves me correctly, not a living soul either boarded or left the train. Thereafter, we steamed by the side of Loch Tulla and Tulla Water, the grand mountains on the eastern side making a fine setting to the wonderful panoramic view below. It was not long before we were speeding across Rannoch Moor. The line is more or less floating upon this huge stretch of waste. How it was constructed is a mystery to me. Suffice it to say, we traversed its entire length without mishap. It was a rather desolate journey at that point. Miles upon miles of barren waste were presented to view. The moor was cracked in many places as a result of the prolonged drought. Not a living creature was to be seen, though very occasionally a few Grouse went skimming over a neighbouring brae. Old tree stumps, whitened and gnarled with age, were strongly in evidence, the remains of the old forest of Caledonia, and thousands of boulders dotted the moor like the Sheep had done farther south. Had there not been a two months' unprecedented drought, the scene, as we crossed Rannoch Moor, would have been much more memorable. As it was, it was an experience not to be forgotten, but if the spongy moor had contained water in the pools, and the burns had been in spate, the journey would have been made more impressive. At one point upon Rannoch Moor, we were at a height of (I believe I am correct in stating) 1540 feet, the highest point of any railway in Britain. Thence, we sped on until we



passed Loch Ossian on our right (the loch is at an altitude of 1269 feet above sea level), and then for several miles we clung to the shores of lonely Loch Treig. This loch made a great impression upon me because of the immense solitude which it possessed. Below us, a matter of several hundred feet, was the barren eastern shore. Across the water, on the western side, the mountain ranges rose sheer up to an altitude of 3658 feet. Nothing of an animate nature was to be seen upon, or in, the loch. Not a bird was tempted to fly over its mazy depths, indeed I am informed that the depth of Loch Treig has never yet been ascertained! We missed one or two high mountains on our right because of the rugged grandeur of Loch Treig, and we were so far removed from the outside world, that we were hardly prepared to suddenly draw up at the little station of Tulloch, the next stopping place.



FIG. 71.—THE TUMBLING BURN.

We did not stay long at Tulloch, and were soon making our way towards Fort William, our destination for the night. The Highland line strikes north-west after leaving Tulloch, and, when Spean Bridge is reached, it proceeds in a south-westerly direction.

Glen Spean is very wonderful, so also is Glen Roy. Hard by the last-named, there is the station of Bridge of Roy, and from thence to Spean Bridge the ride is awe-inspiring, as the line skirts a deep ravine, at the base of which a tumbling burn presents itself. The manner in which this waterway has carved out its rugged course through a rocky bed is remarkable. On either side, the high banks are festooned with ferns of many kinds, such as Bracken, Male and Lady Ferns, the Northern Hard Fern, the Broad Buckler Fern, Maiden Hair Spleenwort, and others. Here and there a stately spike of Golden Rod reared its proud head among the greenery, dark rocks, and darker water, lighting up the scene to a nicety. If I were asked to choose the most impressive sight I met with on this memorable northern journey, I think I should be inclined to select the mile or two of rail between Bridge of Roy and Spean Bridge. The deep, rock-strewn torrent will always come back to me when my thoughts wander towards my Highland pilgrimage, and the journey I undertook amply repaid me, if only for a sight of what I have just briefly described.

We stayed a minute or two at Spean Bridge as it is an important stopping-place for the line to Fort Augustus, which takes one close to the shores of Loch Ness, and then on to Inverness.

Bidding good-bye to Spean Bridge, we soon espied the snow-capped heights of Ben Nevis. This mountain, as I mentioned on a former occasion, is the highest in Great Britain, attaining an altitude of 4406 feet. The view of it from the train proved to be the best we obtained, as the mountain was free of clouds in the late afternoon, and a more majestic sight has never fallen to my lot. We could not see the disused observatory on the summit, but that was hardly a disappointment, especially as it is now being transformed into a hotel, the proposal being to construct a railway line up the mountain. Will this make, or mar, the mountain? My Scotch friends appear to disfavour the proposition. Not being a practised mountaineer, I have an open mind on the subject, though, truth to tell, I am of opinion that a railway will quite spoil the wildness and majesty of the environment. At present the more usual way of making the ascent is along a precipitous winding road, seated on a pony, though, of course, many undertake the climb on shank's mare! I did not adopt either course on arrival at Fort William. For one thing, I was fatigued after several hours' journey in the train, for another, the light was failing, and Ben Nevis had become almost completely enveloped in the clouds when I walked out



to Glen Nevis, after a meal at the West End hotel. This hotel is most comfortably situated on the shore of Loch Eil, with the Argyllshire coast immediately opposite. Fort William, of course, is in Inverness-shire. I felt privileged to sign the visitors' book at the hotel, for my signature almost followed that of several distinguished foreign visitors to this mecca of Scotland, including the members of the French Alpine Club. Fort William itself is not particularly interesting. There are several hotels, two of them, the Alexander and the West Highland, if my memory serves me correctly, being the most notable. Being a poor man, I was recommended by a friend to stay at the West End hotel, and can highly recommend it to any of my readers desirous of undertaking a similar pilgrimage to my own. After tea, we walked through the long straggling street, as far as the entrance to Glen Nevis, crossing the bridge which spans the Nevis Burn. It was very lonesome there in the failing light. Ben Nevis had his nightcap well drawn over his head, and the eerie cry of a wandering Curlew added a touch of weirdness to a mere southerner, such as myself.

The one great desire which possessed us was to get a still better view of the mountain, but in this we were disappointed, for darkness was coming on apace, and we were in a strange land, and did not wish to be stranded for the night! I called at a solitary whitewashed cottage on the hillside, a "but-and-a-ben," as the song says, and gained a little information as to our whereabouts. The lady of the house was, with one exception, as dirty a Scotchwoman as I have set eyes upon. I shall write of her when treating of Mallaig. But the Nevis woman would have been handsome, if well washed, and decently clothed. She possessed a fine round head, with peering blue eyes, and a Roman nose, but she looked careworn, lonely, and sad. She had a little child with her at the cottage door. The poor bairn was sadly clothed, and very dirty. I gave the wee mite a threepenny piece to put in her money box, if she possessed one, and was thanked a thousand times by the mother for my princely gift. It was a sickening sight to have even a peep inside that squalid home, and I tore myself away with a pang of remorse. The members of my little party were waiting for me near by. Another road skirted the Nevis Burn on the opposite shore, and, as the burn was almost dried up, we decided to cross it. Now burns are deceptive "craters," as they say in Scotland, and, although this was the driest Summer at Fort William for, at least, fifty

years, I can testify that our journey across the Nevis Burn was a rather wet one !

We trudged homewards, tired and very wet, receiving, as we plodded on, one of Mrs Caudle's curtain lectures on the fallacies of our performance in mid-stream ! Hearty laughter followed, until we drew near to the comfortable precincts of our hotel, where we rested for the night, until the resumption of our journey to Mallaig in the morning.

The station at Fort William is just about as close to the water as it is possible to get it. Indeed, it is no exaggeration when I state that one could fish in comfort from the railway carriage window ! Although the drought was so severe, I noticed, with interest, that, right at the side of bonnie Loch Eil, the water was several feet deep, and the steamers draw up at a pier quite close to the station entrance.

We were somewhat delayed on the morning of our departure, by the late arrival of the all-night train from Kings Cross. When the train did come along, it looked a sorry night-reveller, dust-laden and dirty. Everyone who came off it appeared to be very tired, and the ruffled pillows in the now empty compartments testified to the comfort they had afforded those who used them during the silent watches of the night. The various porters from the Fort William hotels, including one from our own West End, meet the trains, and they looked trim and neat in their braided regalia as they stood together in a little group, discussing the pros and cons of the situation.

It was a glorious morning when we left Fort William for Mallaig, on that eventful day in August. There was just an Autumn chill in the air, which invigorated and energised a southerner such as myself, though the clouds were very low, and were fondly embracing the Argyllshire mountains just across the Loch.

At last we were off, and, if the truth must be told, it was a rather dirty compartment in which we found ourselves, and very different to the West Highland train we had travelled in the previous day. Still, one ought not to complain, for were we not travelling along one of the most wonderful lines of rail in Britain ? The line hugs the shore of Loch Eil for some considerable distance. Fort William is a cul-de-sac station, and, to get out of it, one has, perforce, to go into it first. When coming out, it is not long before one reaches Banavie, from whence one takes the boat up the Caledonian Canal to Inverness. A remarkable series of



lochs may be seen from the train near Banavie. It was our original intention to undertake this boat trip to the Highland capital of Inverness, but I was advised to take the train to Mallaig instead. I shall never regret following this advice, for the experience will not be readily forgotten.

When we arrived at Kinlocheil station, we were close to the head of Loch Eil, and it was not long after leaving there that we espied Bonnie Prince Charlie's monument at Glenfinnan. This extension of the West Highland Railway to Mallaig has opened up to the traveller some of Scotland's most romantic wilds, as well as monuments of less forgotten history. Prince Charlie's monument, or column, marks the spot where Charles Edward raised his standard in Glenfinnan, and, as writes Mr Hope Moncreiff in his fascinating volume, "The Highlands and Islands of Scotland," another column "commemorates the Lochiel Cameron who died at Quatre Bras, as loyal to King George as his father to Charles and James. In those cloudy recesses, beyond the forts of the Great Glen, gathered silently the storm of 1745 to whirl far over Britain. Here Macdonalds and Camerons only half welcomed their rash Prince, the old chiefs too prudent not to see the risks of his enterprise, yet too proud to hold back from it when hot young heads panted to meet the Lowlands in battle array."

Glenfinnan, as viewed from the Highland station, is remarkable, beautiful Loch Shiel being set like a watery gem at the foot of towering hills, beetling cliffs, and tall trees. It is a pretty glen. It is not of such a solitary character, nor so majestic, as other Scotch glens I have seen and visited, such as Glen Fruin, or the Glen of Sorrow, not far from Loch Lomond, but its majestic beauty left me entranced. It was in Glen Fruin that the M'Gregors and the Colquhouns fought their famous battle in 1603, the result being that the M'Gregors suffered heavy defeat. It is historically known as the Battle of Glen Fruin. We left Glenfinnan with real regret, but it was not long before we were again enchanted with the Highland scenery. We shot through several short tunnels, cleverly hewn out of the solid rock, and then drew up at Ailort, where the Loch of that name presents a very wonderful sight to the traveller in such a land. The line itself is at an altitude of over a thousand feet, with over two thousand feet hills on the north, and nearly three thousand feet heights to the south. The view looking into the Ailort valley from such a height can, therefore, be well imagined. I considered Loch

Ailort one of the finest points we had touched, but, when we reached Arisaig, all records were broken, for from thence we could see right out to the Sound of Arisaig, with the Islands of Muck, Eigg, Rum, and Skye in the far distance. It was an enchanting sight for a land-lubber to gaze upon, and, as we came nearer to the rocky coast at Mallaig, and watched the battling waves, our excitement grew intense. On our right, as we neared Mallaig, Loch Morar was exposed to view, and a very lovely sheet of water it is, but our eyes were drawn, as by a magnet, to the left hand side, where the mazy breakers of the Atlantic Ocean called for immediate observation.

As we came within hail of the little hamlet of Mallaig (for it merely consists of a railway station, a harbour, one sumptuous hotel, a few shops, and almost as few houses), we could see just across the water the islands of Eigg and Rum, and, of course, the bonnie Isle of Skye, with the Point of Sleat right at the southern corner. The train seemed to hug the waves as near as it were possible, until, verily, we came to Land's End ! There was no excitement when we landed at this terminus of the Highland line. No shouting of porters, no clanging of bells, no taxicars, indeed no conveyances of any kind, for there is nowhere to be conveyed to, except across the bosom of the mighty ocean at our feet. The harbour was, it is true, somewhat more exciting, for a palatial yacht or two were at anchor, a steamer was shortly sailing for Skye, and some fishing boats were unloading their precious freights.

We walked along the coast a little distance, noting, as we went upon our lonely way, as fine a company of Herring Gulls, perched on a church roof (I forgot to mention there are two churches at Mallaig), as I have ever seen, when we turned and looked towards Skye. The grand heights of the Coolin Hills, several points of which reach an altitude of over three thousand feet, were plainly visible. My poor geographical knowledge was somewhat improved by a Highland woman I met along the shore. She had two receptacles with her for the purpose of collecting water from a friendly burn. I learnt from her the exact position of the Islands of Eigg and of Rum, of Canna, and the Western Hebrides. I specially wanted to see the Isle of Muck. The name appealed to me somehow, I could see Eigg and Rum, why not Muck ? My Highland friend informed me that the latter was hidden in mist among the Atlantic breakers, and "It wouldna' cleer the dee." As I took stock of this brawny, dark-skinned



woman, and listened to her, gruff Gaelic voice, I recognised that what she said was true, namely, that the Island of Muck "was hidden from view," but she little thought what flitted through my mind, as I gazed upon her own unkempt appearance, as regards the appropriateness of that term being somewhat applied to herself! She was dirty!

And thus, a memorable holiday came to an end.

## CHAPTER XII

### ALONG THE COAST AND ELSEWHERE

I HAVE, during the last twenty years, visited a good stretch of our British coast-line, from, appropriately enough, Start Point, Devon, in the south-west, all along the south coast, and then northwards from Norfolk and Suffolk to Yorkshire, Durham, and Northumberland, up to Aberdeen. It has been my good fortune also to explore the Welsh coast from just beyond Chester to Carnarvon, and then up the west coast from the Wirral Peninsula, along the Lancashire coast to Morecambe Bay. Skipping the Cumberland littoral, I have peregrinated along the Scottish coast, its Lochs and Islands, from the gleaming waters of the Solway Firth, right up to Skye. So that, altogether, I have been able to gain a fair idea of the greater portion of the coast-line of Britain, an ambition which I long cherished, and which I hope to complete in its entirety in days to come.

Such pilgrimages as these, although for the most part made but once a year, afford one a capital geographical education, and when, added to this, some amount of historical and natural history knowledge is sought for and obtained, the pleasure derived cannot be overestimated.

By spreading out before me a map of England, Scotland, and Wales (I have yet to set foot in Ireland), holiday memories are renewed with increased interest. The scenes I witnessed are still clearly defined, and I readily acknowledge what a privilege it is to spend so many happy holidays where the salt sea spray invigorates, and brings new thoughts, feelings, and aspirations to one who, like myself, revels in the natural and human history of the land of his birth. A map thus studied becomes a living regional survey, and when, added to one's memory, a detailed diary is at hand for consultation for any given district, one's reminiscences bear an added charm, which only those who experience can fully appreciate.

Let me recall some of the scenes of my rambles away from Hertfordshire, as proof of how one is able to store up knowledge



even after an interval of years. I have the map spread out before me as I write, and there is no need to consult my notes for this general dissertation, so clarified are my remembrances of what I have encountered.

I see the glorious River Dart, down which I sailed from the old-world town of Totnes. The steep-wooded banks running right down to the water's edge still live within my memory, and, as we neared the open sea, I vividly recall the shoals of small Jellyfish, which, carried by the incoming tide, following a severe southern gale, were

literally massed in countless thousands. I have seen much larger Jellyfish on the east coast, but in point of numbers the River Dart holds pride of place.

I have watched the seething masses of Herrings off the harbour at Brixham, where, by the way, William of Orange landed on November 5th, 1688, to maintain, with his thirty-thousand followers, the Protestant Religion, and the liberties of England.

I have seen the famous flotilla of Brixham trawlers sail into harbour on a fine Summer evening, and, as the brown-sailed ships rounded



FIG. 72.—JELLYFISH.

Berry Head (where grows the rare White Rock Rose, which I was fortunate enough to discover), by twos and threes, the scene was one which will always remain with me.

I have undertaken the beautiful cliff walk from Anstey's Cove, round by Hope's Nose, to Torquay, watching the Porpoises disporting their bulky bodies in the gleaming water beneath, and I have explored famous Kent's Cavern, near Torquay, from which such remarkable human and other remains have been obtained, as a result of the life-long labours of that lovable man of science, the late William Pengelly.

Babbacombe's red cliffs, and unmatched greenery, have enchanted me, and the beautiful River Teign, and the more barren Exe, have lured me to their fascinating shores so as to have a

peep at the wading birds, which so dearly delight to secure provender among the mud there, when the tide goes out and exposes a prolific hunting ground.

I have explored the recesses of Lulworth Cove, near Weymouth, and stalked the rare Dartford Warbler near St Albans Head, in Dorset, and around sunny Bournemouth I have spent many happy and profitable hours by the sea, and along the sandbanks near Poole Harbour.

At Hayling Island, near Portsmouth, I first made acquaintance with the song of the Rock Pipit, which, in tone and manner of utterance, strongly reminded me of the Meadow Pipit of our own chalky Chilterns, and in the Isle of Wight, from Ryde to Ventnor, I have fairly extensively surveyed the coast-line, especially where the famous landslip, between Shanklin and Ventnor, provides such a profitable environment for animal and plant life. Near by, I have loitered round secluded Bonchurch, and made a pilgrimage to Swinburne's last resting place. His delight in flowers, especially wild flowers, will be remembered by all who knew and loved him.

In the neighbourhood of Brighton, Eastbourne, and Hastings, I have enjoyed many memorable excursions, in company with kindred souls, one of whom, poor Edward Connold, has now passed beyond the border, deeply regretted and loved by all who knew him.

I have peeped over Beachy Head to get a sight of the Peregrine Falcon, and gathered stray mushrooms on the Downs close by, as Richard Jefferies did before me.

As a boy, I was taken to see the white chalk cliffs of Dover, and at old-world Whitstable I remember, with unfeigned delight, many happy saunters where the Winkles and Oysters congregate in countless myriads, where the Grayling Butterfly is in constant view during the Summer hours, and the Glow-worm and Grass Snake revel in the grassy meadows near the shore.

Ramsgate and Margate are too populous for a Nature lover to enjoy, except when he requires artificial relaxation, and I must skip the Thames estuary and clamorous Southend, until more sequestered Southwold hoves in sight. There, in company with Arthur Paterson, the genial East Coast Naturalist, whose work has not yet received the high recognition it deserves, I have been let into some of the secrets of marine fishes and other tenants of the mighty deep. Together, Paterson and I have explored Broadland, its bird, insect, and plant life, and may the



day not be far distant when our past relations may be renewed to mutual advantage.

Lowestoft and Yarmouth have both been visited, and, a little further North, the whole of the Norfolk coast-line, from Cromer to Kings Lynn, has engaged my wrapt attention. I have been to the late Clement Scott's famous garden of sleep, on the edge of the cliff at Overstrand, tramped over the wind-blown marshes near Cley and Blakeney in pursuit of wild fowl and Sea Lavender, and, as I have already told in an earlier chapter, I have seen the Pink-footed Geese in large battalions at Wells, where Frank Southgate, the artist, acted as my pilot in days long since gone by.

At Holkham I have watched the Merlin and the Ringed Plover, and marvelled at the reclamation of the sea by one of the most famous English agriculturists, Coke, Earl of Leicester, and from Heacham I have driven to Royal Sandringham in the dogcart of Robert Blatchford! This was made possible through the kindly offices of happy Harry Lowerison, whose book, "From Palæolith to Motor Car," shows one of his bents, and whose School Museum at Heacham is worthy of a visit.

I have hammered huge ammonites out of the red chalk cliffs at Hunstanton, and been to the birthplace of Nelson at Burnham Thorpe. Most of the villages and hamlets in this charming district have been explored by me during a cycle tour, and I have passed wet days near dear, smelly Kings Lynn and historic Castle Rising, translating into English the whole of the plant names in the British Flora.

One day, when I was walking along the Hunstanton-Heacham road, a fairly large bird, with long, red legs, came flying over the hedge, and alighted in the middle of the road. As it did so, it bobbed up and down as if on stilts, and strikingly reminded me of some of the antics of the homely Robin. I could see, without the aid of glasses, that this strange feathered visitor to the roadside was the owner of long, red legs, and a fairly long beak. Its body was about the same size as that of a Thrush, and it had a short tail. When in flight, it displayed a good deal of white, and uttered a shrill alarm-note, which is very characteristic of the seashore.

That it was a wading bird there was no shadow of doubt, and it did not take me long to establish its identity, for it was a Redshank (Fig. 73). Inquiry from a local bird-lover revealed the fact that the Redshank very rarely alights in a road, and, to tell the truth, I was responsible for it doing so! Last Summer I was

holidaying in the beautiful Island of Arran, and every day, and all day, I was hardly out of hearing of the bird under review. The note may be written down as a shrill and somewhat monotonous "toodle-oodle-oodle," quickly repeated, and, as I caught sight of the Redshank swinging over the hedge, I imitated its note to the best of my ability. To my surprise, the bird heard and heeded me, or rather the call I uttered attracted its attention. It pulled itself up, as it were, then swung back, and alighted in the centre of the roadway as already described. Having satisfied itself that no feathered biped was in the neighbourhood, and that it had evidently been deceived, it bobbed up and down a few times, ran along in the engaging manner it is wont to do, and then made its way towards the salt marshes, where it loves to wade.

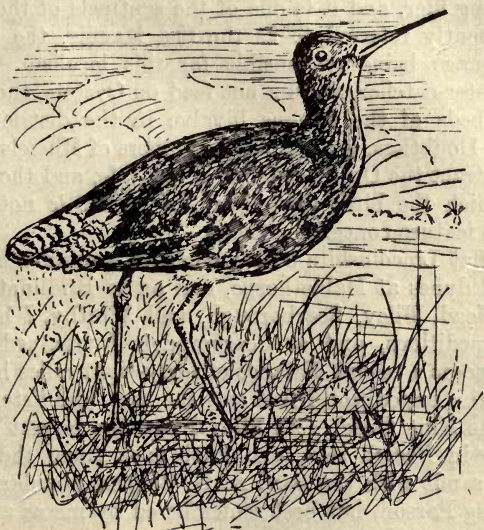


FIG. 73.—REDSHANK.

I can now not only pride myself on being able to start the Nightingale singing at home in Hertfordshire, and to call the Bullfinch almost to my elbow, but also to imitate, with some amount of success, the Redshank of our marshes and seashores.

Walking along the shore towards Old Hunston, and the village of Holme, when the tide was out, I was pleasantly surprised to observe two companies of birds not far from the famous Mussel beds which are there found. One company of birds was com-



posed of individuals about the size of a Pigeon, and they were adorned in a spick and span suit of black and white, with long orange-coloured legs, and a formidable beak. The second feathered gathering consisted of much smaller birds, which looked like large Swallows, but they were dressed in a neat garb of silvery-grey.

A closer approach told me at once that this second flock were Terns, or Sea Swallows, as they are often called, and, as the birds rose *en masse* in the air, the sight was one not easily forgotten. The wings of the Tern are very sharp cut, and the movements of these delightful seabirds when in the air are particularly graceful. The Oyster-catcher, for such was the name of the larger black and white bird I also had under observation, is also a strong flier, and it is one of the sentinels of the seashore. It is frequently referred to as the Sea Magpie, the black and white plumage being responsible for this localism. Although named Oyster-catcher, it does not feed on Oysters, though there are large beds of the famous bivalve in the district where I rambled. Doubtless, the countless numbers of Mussels and other shellfish attract the Oyster-catcher at low tide, and the ingenious way in which the birds split open the valves is not the least interesting feature concerning them.

On the flat Lincolnshire coast, over and around the marram-laden sand dunes at Mablethorpe, and on to Bridlington, Flamborough Head, Filey, Scarborough, and Whitby, I have made several expeditions, and at Scarborough I tramped over the heathery moors a record distance of forty-eight miles in one day. It was on this expedition I first saw the nest, and listened to the song, of the Ring Ouzel. At Filey I saw the largest Jellyfishes which live in British seas, and kept pace along the beautiful stretch of sands with the Rev. A. N. Cooper, popularly dubbed the Walking Parson, but best remembered by me as a kind host and genial companion.

I have stood upon the rock-girt Filey Brig, peeped over the Speeton cliffs to study the various plumages of Black-headed and other Gulls, and had, as fellow-lodgers next to my bedroom at Scarborough, Black Rats, a Python, and what is stated to be the largest Boa Constrictor in Europe !

I have had just a peep at the coast of Durham and Northumberland, and, near the eastern entrance to Scotland, that mecca of sea-bird life, the Farne Islands, for ever associated with the heroism of Grace Darling on September 7th, 1838. A stretch

of the Scotch coast from Berwick, as far as the mouth of the Firth of Forth, and out to the Bass Rock, where the Gannet, or Solan Goose, whitens the rugged slopes with its legions, has come under observation, and from thence I have journeyed by easy stages to Aberdeen, along the coasts of Fife, Forfar, and Kincardine. I have always had a longing to make a prolonged sojourn at Stonehaven, whose beautiful sandy bay is an ideal spot for a restful holiday. Some day I shall hope to stay there.

I have been over and under the Forth and Tay bridges, and at Tayport, on the southern shore of the River Tay, have seen as fine a gathering of Gulls as anywhere on the British coast. When one remembers that this little resort at the entrance to the Tay is only a few minutes' steam from bonnie Dundee (where I neither saw nor tasted marmalade), such a feathered company is all the more remarkable.

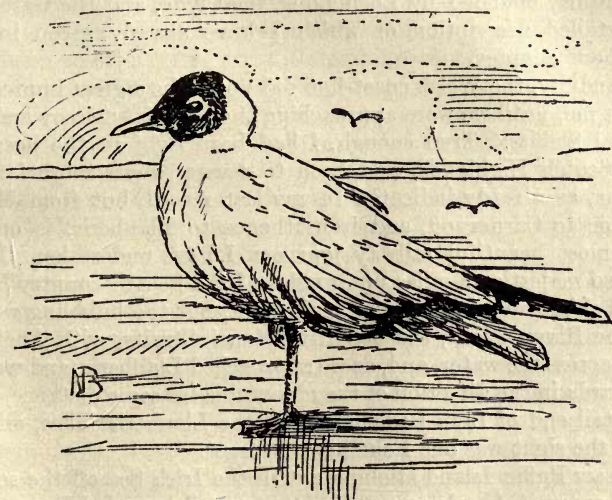


FIG. 74.—BLACK-HEADED GULL.

Happy recollections come back to me as I reach Aberdeen on the map before me, for I have tramped along Deeside on the way to Balmoral, and watched the silvery Salmon disporting their dappled bodies in the rushing waters under the old bridge, and returned footsore to my hotel where, by the way, the late Lord Strathcona was also staying.

I must now bid farewell to the east coast, and ask the reader



to accompany me to Wales, where I paid a hurried visit to Llanberis, and from which I made the ascent of Snowdon. I had just come from Scotland, and the following account of my pilgrimage, as written at the time, may best be given.

I have now been right along the North Wales coast from Saltney (Flint) to Carnarvon, and then inland to Llanberis. I had good opportunities of noticing at close quarters the seaside resorts of Rhyl, Prestatyn, Llandudno, Colwyn Bay, Conway, Bangor, Deganway, and other less known places. Across the Dee estuary, on the Wirral shore of Cheshire, I could espy at the north-west point the pretty township of Hoylake (famous for its golf course), and several other residential places. It may be noted with interest that the Wirral portion of Cheshire is the only maritime part of the county named. Curiously enough, the Wirral peninsula reminds me very strikingly of the Dunbarton peninsula, bounded by Loch Long, the Clyde, and the Gareloch, a detailed description of which I have already given in the previous chapter.

Candidly, the Welsh coast-line did not make a great impression upon me, until we were approaching the Isle of Anglesey and the Menai Straits. True enough, I had been right in the heart of the Scotch Highlands, and been to several of its more famous Lochs, as already indicated in my last record, but from Menai Bridge to Carnarvon, and from thence to Llanberis, is one of the most beautiful railway journeys I have undertaken. It is not so majestic as miles upon miles of the Scotch country I had left behind me with so much real regret, but the bubbling waters of the River Seiont, the beautiful Menai Straits, with Anglesey just across the water, and, as we approached Llanberis, and wound upwards in the direction of the mountains for some distance, with the tail end of Llyn Padarn, one of the Llanberis lakes, on our left, the sight was one I shall never forget.

I saw Puffin Island sticking out in the Irish Sea off the south-east coast of Anglesey, not far from prettily wooded Beaumaris, and the mention of Puffin Island reminds me that between Sandycroft and Bangor I saw more sea-birds in a single journey than I had observed during the whole of my six weeks' pilgrimage in bonnie Scotland. This is interesting. We left the Holyhead express at Bangor, picking up the track of that line again at Menai Bridge, although not travelling upon it, as our way lay south-west.

The suspension bridge, as well as Stephenson's tubular

railway bridge over the straits at Menai, are noted as remarkable feats of engineering, and across the water, on Anglesey, saw, perched on a hillside, the monument erected by the owner of the island. Anglesey is a very pleasant place, and some day I look forward to spending a holiday there. In the meantime, I have had just a peep, sufficient enough to whet my appetite.

As we got nearer to Llanberis, with the Elidir mountains on our left, and the Snowdon range immediately ahead of us, a delightful prospect opened out to view. On the opposite side of the lake, a splendid sheet of water two miles long and a quarter of a mile broad, fine craggy scenery was presented to view such as I had not seen anywhere in Scotland, though, true enough, the American visitor to Scotia is reputed to have said that he could not see the scenery because of the mountains! The varicoloured wooded slopes of the former are, as the guide-book will tell you, "reflected in the lake which washes their feet." On the opposite shore we noticed the mineral railway, and then, frowning down upon us, the great slate quarries on the precipitous side of the mighty rock came into view.

Llanberis is situated, as it were, in a huge basin, and it is partly sheltered by trees. Just beyond the station, right at the point, and clustered among the trees, is Dolbardan Castle. Just a solitary tower is all that remains of the noble edifice, guarding, sentinel-like, the entrance to the famous Pass of Llanberis and the Upper Valley, overlooking Llyn Peris.

Dolbardan Castle must, of necessity, be of great antiquity, and some, who ought to know, tell us that it is of pre-Norman origin! It is probable that this rugged district was much frequented during the contentious times of Vortigern, while some assert that this castle formed a retreat, or meeting place, for Llewelyn's lieutenants, and it is reputed to have been the prison wherein Owen, Llewelyn's traitor brother, was confined.

The monarch of Welsh mountains—Snowdon—may be approached from various points. Unlike Ben Nevis, far away in Inverness-shire, ponies are not available, at least so far as I was able to ascertain, but this still leaves two ways of ascending to the summit of Snowdon. The reader may remember that, when writing up my journey to Fort William, I mentioned, as an item of interest, that it was now proposed to construct a railway up Ben Nevis, and that already a start had been made by the conversion of the old observatory on the summit into a hotel.



Snowdon is the monarch mountain of both England and Wales, and as I had just recently returned from the Highlands, where I saw, but did not ascend, Ben Nevis, I count myself fortunate in seeing two of the highest mountains in Britain during one holiday. With our present-day craze for getting as high as we can in the world, aeroplaning among and above the clouds, erecting giant towers, wheels, and flip-flaps, small wonder, perhaps, that those who find themselves in the vicinity of Snowdon possess a great desire to get to the top. If you are the owner of a decent pair of legs, fair nerves, and a lover of pure mountain air, the ascent of Snowdon is not really a difficult matter. The last lap, so to speak, is a trifle "nervy," even along the recognised path from Llanberis, but there are very few accidents, unless the climber chooses his own pathway. Then there is trouble.

Time being precious, I chose the less arduous journey, taking my seat in the comfortable little train at Llanberis (the Mountain Railway Station is just a few minutes' walk from the terminus of the L. and N.W.R.), having nothing further to do than to sit still, gaze wonderingly out of the open windows, and make my peace with all the world. It is an interesting experience to those who have never done it before. The reader may perhaps try to imagine what it is like to sit in a little toy train, just one coach, that is all, with the engine in the rear, and meditate upon the fact that, as soon as the signal is given to be "off," one is going to commence train-climbing to a height of 3560 feet!

The journey is started. We are all agog with excitement, for even alluring guide books whet one's appetite for travel, but one can hardly realise that he is going above the clouds, to ascend in a comfortable seat to a lofty height, and to witness the romantic and awful grandeur of it all?

We at once realise that we are ascending, though the train starts apparently from a dead level. The fore-part of the one carriage is pitched above us, for we are in the last seat, next to the Swiss-made engine, which is in the rear. We proceed very cautiously all the way. As a matter of fact, it is a five miles' journey from Llanberis Station to Snowdon Summit, and it takes about an hour and a quarter to do it! This will give an idea of the slowness of the journey, and the rise thereof.

First we go through a tree-laden area, with the housetops far below us, reaching, in a few minutes, one of the finest bits of country it is possible to imagine. We can see, as we approach it on the left, the famous Llanberis waterfall, for we are travelling

on the edge of a great tree-sloped chasm. We pass over the River Afon Hwch (Afon means a river), reaching a fine masonry viaduct of fourteen arches, each of 30 ft. span. The gradient is 1 in  $8\frac{1}{2}$  at this point. Besides carrying the line upwards, this huge structure serves another purpose, for it enables the traveller to obtain a grand view of the whole length of the Ceunant Mawr (or great chasm) up to the famous waterfall. A second viaduct is reached before our initial excitement has abated. This latter structure is placed at the right hand top corner of the chasm, and from this point a full view is obtained of the splendid fall of water, and the deep ravine immediately below. We are still climbing upwards. The country now traversed is typical moorland. Sheep are placidly grazing, and we notice, with interest, that they have long woolly tails.

We now reach the first station on the line—it is only a mere hut—but nobody wishes to alight or get aboard, and we do not stop. On either side of us the route is still moorland, but ahead of us we can plainly see the grand old monarch, and the succeeding ranges in majestic array. It hardly seems possible that we are really ascending Snowdon, and shall find ourselves eventually on the summit, perched up 3560 feet. From the first station, Snowdon summit is about four miles to the southward, and the line runs tolerably direct towards it. Another bridge, with a 50 ft. span, is gone over, and, on the right, we observe the pretty waterfall of Ceunant Bach (Bach means little, small).

From this point we ascend for some two miles the long slope of Llechog, with a ridge on our left, which at present hides the world-famous Pass of Llanberis from view. The long open valley on our right is Cwm Brwynog (Cwm means a valley or dingle), and right across the valley there is a series of small hills such as the noble Eilio, Moel Coch (Moel means a conical hill, Coch means red), and Moel-y-Cynghorion (the Hill of Councils). Our journey is becoming more awe-inspiring every moment, and we really begin to realise now the exact nature of our expedition.

There is still no open view on the left, for the ridge aforementioned prevents it. Everything at present is ahead, and on our right, and as we reach station number three we notice a small chapel, as well as the halfway house, which has this curious lettering upon its door: "Noah's Ark, Satanus non est. Holme and King, contractors."

We are now going up and up the slope of Llechog, and soon after passing the halfway house, where, by the way, we take



in water, a view is obtained of the peaks of the two Elidirs on the other side of Llanberis Pass. That is on our left, and we are fast preparing for an opening-out on that side, but not just yet. Turning to our right again, we see in front of us a frowning, black, perpendicular precipice stretching from east to west as if to form an end to the glorious valley of Cwm Brwynog. The name of this in English is Black Precipice. I dare not venture its Welsh equivalent! Looking ahead, and then westward, a magnificent spectacle is being opened out before us. Some lakes, far below and also away from us, come into focus, looking strangely lifeless and lonely, and then right above the precipice of Clogwyn Du (Dhu or Dulas means black, or dark, Clogwyn means a precipice), a stretch of evenly sloping ground is seen, with the little railway track running upwards from left to right. The terror of it now dawns upon those of us who are at all "nervy." Are we really going over the narrow edge of that awful precipice, on an apparently narrow ledge of rock, about 1000 feet above the lake lying beneath? Yes, it is so, but, whilst meditating, we see the slope more plainly and find, after all, that it is not nearly so terrible as it looked from below. It was near here that the mangled body of the Rev. H. W. Starr was picked up in 1847.

We are now just three miles from Llanberis, and have gained the highest point of Llechog. Here there is a sudden break on the left, where we have the first view into Llanberis Pass. We are looking down almost perpendicularly from a rocky plateau. The bottom of the valley, lit up by sunlight, is plainly to be seen, for I noticed a Kestrel hovering quite low down, and the high road and stream could be easily discerned—2000 feet below! The scene is truly one of awful grandeur, and I have never seen anything like it on all my travels. The journey was amply repaid as a result of that one sight alone. It will never be effaced from my memory, and for, sheer majesty, beats everything Scotland had to offer me. We were all spellbound, enraptured, glorified. When in this state of mind we were hardly prepared to reach Snowdon's summit, which we did successfully a few moments later. We again crossed the Llanberis Pass, and then to the right, so as to traverse the steep track we had seen with such terror from below. The view from there is magnificent. Glimpses could be obtained of the Irish Sea, and, far across, the Wicklow Mountains, with the 3000 ft. height of Lugnaquilla, could be plainly discerned.

Really, I never picked up so much geographical knowledge

as on this holiday ! At our feet was the sequestered village of Llanberis, looking like a toy city ; then the paths to the summit from the famous Pass, as well as from Capel Curig and the Snowdon ranger path, came into view, and we at last reached the terminus on the western side of the monarch. On the left of the platform, the visitor attains the very peak of the mountain at the cairn. The views from the summit are indescribable, and must be left for a more facile pen than mine. But I have ascended Snowdon !

When at Chester I traced the source of the River Dee, up which I have sailed past Eaton Hall, making a detour to Hawarden so as to sit in the pew once occupied by Mr Gladstone, of whom I am a hero-worshipper, and to visit the finely-timbered park in which the great statesman wielded his axe.

The Wirral peninsula, a happy hunting ground for the naturalist, retains pleasant memories, for it was there in the bleak days of gusty March that I watched the Oyster-catchers feeding upon the mussels at low tide, and a lecturing tour took me into Liverpool daily across the broad expanse of the River Mersey.

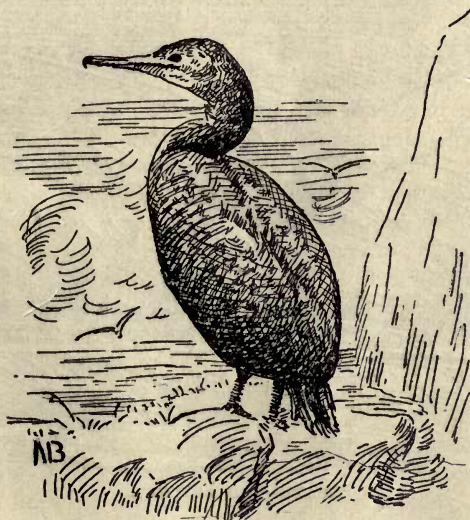


FIG. 75.—CORMORANT.

Chester enabled me to make acquaintance with centuries long since past, and the bird and plant life from the Ribble at Preston,



up to Morecambe Bay, not forgetting leafy Lytham and noisy Blackpool, have also claimed my attention. Off Lytham I have watched large companies of seabirds dabbling in the mud, among which I specially remember a Cormorant (Fig. 75), whose clever exploits at catching fish I have never seen surpassed.

I have seen large Salmon from the window of the Bluebell Hotel at Annan, near Dumfries, in the river after which this pleasant Scotch town is named, and which is fed from the Moffat Hills, near Ecclefechan, the birthplace of Carlyle. Opposite the hotel, was the Academy at which the great man went to school, now a solicitor's office. A saunter to the Solway Firth from this point is linked up with happy associations, and around several inland Lochs between Dumfries and Glasgow I have searched for birds, plants, and stray trout.

The rocky Ayrshire coast, from Colmonell in the south to Wemyss Bay in the north, with rugged Ailsa Craig standing out like a grim sentinel in the Clyde, has also been visited by me during holidays of yore.

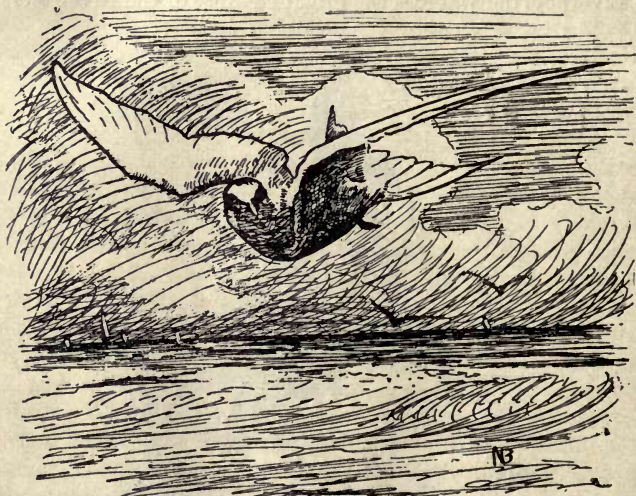


FIG. 76.—TERN IN FLIGHT.

In the lovely Island of Arran some of my most treasured experiences as a Naturalist have been obtained. Its coast, glens, burns, moors, hills, and mountains, have fascinated my nature soul to a degree that is inexpressible. I have seen the

best part of the British fleet at anchor in Brodick Bay, speared for flat fish in the Clyde, rambled among the profusion of wild flowers (and especially marsh plants near the shore), and gathered Mushrooms on the steep slopes of Dunfion, to the consternation of the natives who could not understand the diet of an Englishman which included Paddock Stools! Down by the shore I have watched the Tern (Fig. 76) scanning the water for food, and focussed my glasses upon the Gannets as they soared aloft, and then, with breakneck speed, the birds dashed headlong to the sea with a mighty splash, as if a torpedo had suddenly exploded, and sent up showers of spray.

I have sailed right round Arran so as to obtain a better idea of its coast-line, bathed in the Clyde and Kilbrennan Sound, and been to Campbeltown, not to drink whisky but to eat Scotch cakes, and to see the Atlantic breakers dashing upon the shore at Machrihanish. From that point I had my only view, so far, of the Emerald Isle, where I espied Fair Head off the Mull of Kintyre.

Many of the watering places on the Clyde, such as Rothesay, Dunoon, Millport, and the rest, have all claimed me as a visitor, and will, I hope, yet again.

A few notes concerning a visit I paid to the Great Cumbræ may here be given. I had frequently passed close to the Cumbræ (for there is a Little Cumbræ close at hand, and both of them have broken away from the larger island upon which Rothesay is situated), but never landed there before.

What took me to the Great Cumbræ was an invitation I received, when staying in Scotland, to visit the Marine Biological Station, at Millport. The station belongs to, and is controlled by, the Marine Biological Association of the West of Scotland, the President, on the occasion of my visit, being Sir Archibald M'Innes Shaw, LL.D., of Glasgow.

From Fairlie we took a small coasting steamer to the Great Cumbræ, landing at the first port of call, Keppel Pier, Millport. Millport itself is round the corner, in a wide sweeping bay, and quite a popular resort for Scotch folk during the holiday season.

We spent all the morning going over the Biological Station, which is admirably conducted by the superintendent, Mr Richard Elmhirst, F.L.S., preparatory to the arrival of the large and distinguished party of members and friends, who came down by special steamer from Glasgow about midday. The Millport Biological Station was founded by Dr David Robertson, known



as the Cumbrae Naturalist, and the original "Station" consisted of a sort of Noah's ark, perched high and dry upon the rocks. To-day, a handsome and well-equipped building, with superintendent's house close by, stands out boldly as a lasting monument to the illustrious founder, and in the museum there are gathered together his wonderful collections of animals and plants of the Clyde area. Soon after the arrival of the large party of members and friends, a meeting was held in the museum, which was presided over by the Rev. John Smith, D.D., of Partick, who, on behalf of the President and General Committee, welcomed the members and visitors to the Station.

Dr James F. Gemmill, M.A., of Glasgow University, who has taken such an immense practical interest in the Station, followed with a business-like statement, outlining the nature of the scientific and educational work recently carried out at the Station, and inviting attention to the many interesting exhibits which had been arranged for inspection. Dr Gemmill particularly emphasised the great economic value of the research work at the Station, and the benefit to the community at large of the knowledge gained as a result of such research.

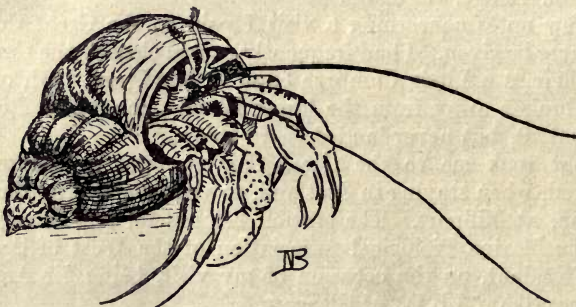


FIG. 77.—HERMIT CRAB IN WHEEL SHELL.

Mr C. R. Cowie, Convener of the Finance Committee, referred in a most interesting speech to the educational work at the Station, its claim upon the public, its interest and use to teachers, and others, for original work in regard to increasing their knowledge of the fauna and flora of the Clyde area.

Then followed Sir David M'Vail, who expressed thanks on behalf of the visitors, and pointed out that great benefit would accrue if a series of consecutive lectures and demonstrations could be arranged at the Station.

Dr John Hutchison associated himself with the vote of thanks, and referred in feeling terms to his association, as a boy, with the founder, Dr David Robertson. The meeting then terminated, whereupon various small sections were formed for a tour of inspection. The treasures of the museum were closely inspected, as well as the living tenants of the large tank aquariums, the class laboratories, and the research work rooms. To attempt a detailed account of all to be seen and learned as a result of a visit to a marine biological station, such as that at Millport, would, in a few notes, be courting the impossible. Suffice it to say, that, to an inland naturalist such as myself, the visit I was enabled to make under such auspices, was a practical education. To see at first hand, living inhabitants of the deep in their own sea water, as living, and, let us hope, as happy creatures, was an experience not easily forgotten. One can only hope that such valuable work as is being carried out on the Clyde will receive the support it so richly deserves, and that upon our English coast similar stations will be put into operation, with a Government grant towards their upkeep.

Other more famous Lochs and Islands on the west coast of Scotland northwards to Skye have also a never-to-be-forgotten niche in my storehouse of journeys round the British coast, as to which I have already written at some length in the previous chapter, and I may conclude this very rapid peep at my various itineraries by relating a few experiences inland at Paisley.

Of Paisley itself, the less said the better. Candidly, I do not care for the place. I suppose it is like most other cities where there is extreme wealth, for here, sure enough, is also extreme poverty. The dominant factor in the prosperity of Paisley is the cotton industry, and when I saw an army of thousands of employees (mostly young girls) leaving work in a solid mass I was greatly impressed with the scene before me.

Perhaps, I had better say straight away that Scotch towns in general do not appeal to me, and Paisley is one of these, and therefore no exception to the rule. The reason is not far to seek. As the reader may already know, the tenement system holds good in Scotland, and to one hailing from a Garden City, "where all is bright and beautiful, and only man is vile," the tenement system is somewhat distressing. One block of tenement dwellings pointed out to me at Shawlands Cross, Glasgow, contained, so I was told, at least 2000 people: men, women, and children! Needless to say, there are no gardens to these tenements, and



the consequence is the children have to play in the stone passage leading to the various flats, or in the road or pathway adjoining. True, there are nice open spaces to be found for the seeking. There are several in the neighbourhood of Paisley (though not nearly sufficient), and near Glasgow I visited the famous Rouken Glen Park, and Queen's Park.

Whenever I see the Scotch tenement children, they appear to be eating. But it is not porridge that is being stowed away so much as bread and jam. There are many little "stowaways" among Scotch bairns, and they *must* love bread and jam. In consequence, their faces often betray the unmistakable trademark of jam or marmalade! The men folk almost invariably wear caps, and smoke clay pipes with metal tops. I do not know why they favour the latter, and, as my host at Langcraigs is not a devotee of "the weed that cheers," he has been unable to enlighten me on the subject.

The women folk rarely wear hats, just throwing a shawl over the head and shoulders. The older women look jaded and careworn. The responsibility of domestic affairs seems to be writ upon their brows, yet the children appear to be dirty and mostly uncared for! This does not apply to all of them, but the majority of the tenement children thus appeared to me.

Yet, in spite of this, the boys and girls seem to be happy. If making a noise is anything to go by, they are indeed in happyland.

It is interesting to watch young Scotland in the making. The great game here among the working classes is bowls, and the way in which the greens are kept is very pleasant to witness. I was much struck one Saturday afternoon when walking to Langcraigs from Paisley Centre, for I had several examples of the Scotchman's love of recreation and sport.

At Ferguslie I watched Drumpellier give a good hiding at cricket to the first-named team. It is a ripping ground, the haunt of cricketers in Summer, and seagulls in Winter.

Adjoining the cricket ground there are several tennis courts, which were all occupied at the time of my visit, and, not far away, I witnessed a football match, and in the next ground a bowls match! Just over the road, the elite of Paisley were busily engaged playing golf, and the boys in the street were engaged at marbles, or "bools." I like to watch these hard-handed sons of toil playing bowls. One can see at a glance the Scotchman's care and shrewdness. There is nothing hasty in

the methods employed. I noticed the same trait at the Ferguslie cricket match. Each batsman played the ball carefully, all along the carpet as we cricketers say, but one Drumpellier batsman opened his shoulders and actually hit two fours in succession.

I like the game of bowls. It keeps the working-man employed in his leisure hours. It takes him into the fresh air. It brings him into social intercourse with his fellow-man. It provides him with sport, recreation, and exercise combined. But, for all the world, I do not think I could show so much excitement as these folks do when the wily ball, so weighty and ill-controlled by the mere tyro, makes its way towards the white "jack." The partners rush up the green, and, when a fine shot has been made, hastily shake hands and congratulate one another. I listened to their lingo. It made a great impression upon me, for the simple reason that I could not understand a word of it. Still, it was all very interesting, and gives one a broader outlook upon life's horizon. What the women and young girls do in their spare time I am at a loss to understand. The picture palaces, of course, claim a great many patrons, and, on Saturdays and Sundays, the walk to the bonnie wee well on the famous Gleniffer Braes is a great institution.

I was staying on one occasion within a stone's throw of these famous Gleniffer Braes, which have been immortalised in song and verse by Scotch writers. Macdonald's Well, the "Bonnie Wee Well on the breist o' the Brae," has long been famous, and the good folk of Paisley peregrinate thither in great numbers, especially in the quietude of a Sabbath evening. As one mounts gradually upwards, it is obvious to the pedestrian that, on reaching the summit of the brae, a panorama will be stretched out below and beyond such as might favourably compare with anything else in Scotland. Certainly, at the moment, I can only recall three of the scenes which have made such an indelible impression upon my memory, namely, the view of Glasgow, as seen from where the cannons stand in Queen's Park, and the views of Edinburgh and neighbourhood, as seen from the Castle and Arthur's Seat.

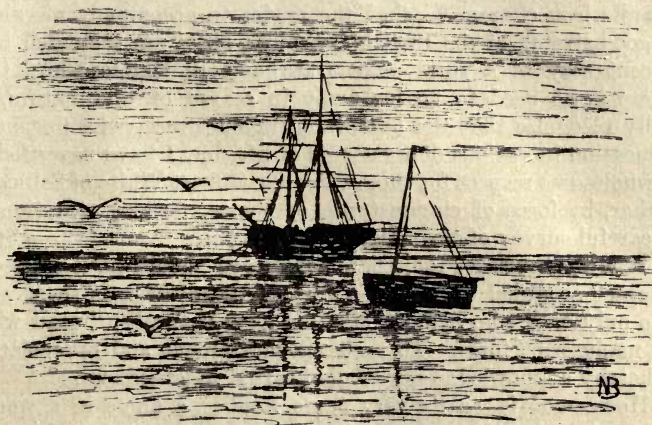
In view, therefore, of the magnificent view to be obtained from the top of the Gleniffer Braes, I did not want any pressing to accept an invitation to go to the "Bonnie Wee Well," in company with a friend one evening in September. On turning round after reaching the top of the brae—which hereabouts has been



purchased by the Corporation of Paisley and Provost Robertson, for the purpose of extending the public benefits of a large health-giving open space, and partly for the protection from pollution of the line of water supply—a wonderful scene presented itself. Below us the large town of Paisley was spread out as on a map. The famous Cotton Mills; the Cornflower Works; the very handsome Coats Memorial Church; the stately homes of Paisley's rich folk fringing the outside of the town, and, away beyond, the City of Glasgow, and the valley of the Clyde, flanked by the Kilpatrick Hills, were all plainly to be seen, indeed the details visible are past description, or even enumeration, here, for, away to the north, some 26 miles as the crow flies, I could plainly discern the summit of Ben Lomond, and right away to the west I could even observe in the warm evening glow the Paps of Jura! At a convenient place on the hillside, Provost Robertson has had erected on a marble pedestal a distance and direction plate of immense interest to the resident, or visitor. This takes the form of a flat engraved bronze plate, and in the centre of it are these words: "This spot is 600 feet above sea level, and is in Lat. 55°49' N. and Lon. 4°28' W. The figures represent the distance in miles from here as the Crow flies."

From the central circle bearing the above inscription various lines radiate to North, South, East, and West, pointing to different places. Thus, looking due north, I discovered Loch Katrine was 29 miles away. Then looking due south I found Kilmarnock was 14 miles distant. On my left-hand side (west) the handsome bronze plate informed me that the popular seaside resort of Rothesay was 23 miles distant; that the name of the mountain I could so easily see was Misty Law (1663 feet high), 10 miles away; that Millport, on the Great Cumbrae (about which I have already written), was  $18\frac{3}{4}$  miles distant, and that Lochwinnoch, where I fished and caught nothing on my first visit to Scotland sixteen years ago, was only  $6\frac{1}{2}$  miles away. To the south-west was Ireland,  $76\frac{1}{2}$  miles; Ardrossan,  $18\frac{1}{4}$  miles; and Ailsa Craig, 49 miles. Looking north-west, I learned that the Gareloch was about 16 miles distant, and that it was  $22\frac{1}{2}$  miles to the head of the Holy Loch. Loch Lomond, the guide-plate told me, was  $14\frac{3}{8}$  miles away; that the Kilpatrick Hills on the other side of the Clyde were 10 miles away; that Stirling, with its famous Castle, was 29 miles away; that Glasgow Cross was 9 miles distant; Edinburgh, 49; and Carlisle, 88 miles away, almost due south-east.

I never remember a geography lesson either in or out of school from which I gained so much information as on the occasion referred to, and I venture to suggest that a similar erection should be made by the Government Survey on various high points in every county in Britain.





## CHAPTER XIII

### HOMEWOOD

IN the last chapter I asked the reader to accompany me along a good stretch of the British coast-line, but I am reminded by a recent stay at a rural retreat at home in Hertfordshire that there is no need to go far away in search of wild nature. I fully recognise that the observant traveller receives a first-hand education in various departments of life, but I have nevertheless a wholesome respect for those who, like Gilbert White of Selborne, either, by force of circumstance or choice, restrict attention to a careful survey of their own parish.

It is appropriate, too, that Homewood should have a special chapter accorded to it in this volume, for my friends there were the only ones who heard "My Life as a Naturalist" read when in manuscript form. To their encouragement and appreciation I hereby acknowledge my whole-hearted indebtedness.

Homewood is, as its very name implies, a home in a wood; it is not the home-wood one often finds on large estates, where the wood nearest the big house is so-called. Surrounded by fine Oaks and sturdy Hornbeams, environed with pleasant gardens, wreathed, at the time of my visit in early June, with blue of Lupins and Cornflowers, flaring red of giant Pæonies, rich yellow clusters of Corydalis, delicate pink Azaleas, and the rest, Homewood was a delightful demesne, in which a somewhat fatigued author could spend a never-to-be-forgotten week-end, so as to enjoy a mind restfulness from his literary labours.

When I retired to rest on the first evening of my visit, the weird churring of a Nightjar near my bedroom window was, of itself, sufficient to remind me of the throbbing heart of the country in which I was sojourning, and, at four a.m. next morning, a Cuckoo was persistently calling from almost exactly the same place occupied by the night bird during the cover of darkness. After that auspicious awakening, surely an appropriate welcome for the birth of another glorious June day, there was restricted slumber for even a tired naturalist. At the Cuckoo's challenge,

all the birds of the neighbourhood bestirred themselves, and soon, as I lay there amidst a perfect torrent of bird music, I distinctly heard the notes of twelve different songsters. Most beautiful of all was a melodious Blackcap, of whose great reputation as a songster I had been reading to the Homewood circle the previous evening (see Chapter V.). It was curious, to say the least, that within a few hours I should hear, so close to the open bedroom window, a very fine Blackcap uttering to perfection the song of the Thrush, as well as its own melodious repertoire, a matter which was discussed with interest over the breakfast table later in the morning. A Lesser Whitethroat was very insistent in its song not many paces away, and I feel confident had a nest in the hawthorn hedge bordering the kitchen garden. In the fields surrounding the pleasure, awakened Skylarks rose in rapturous roundelay at the break of dawn, and crested Lapwings screamed with sheer delight. Not far away, earlier in the year, this bird deposited its four pear-shaped eggs in the footprint of one of the plough horses (Fig. 78).



FIG. 78.—EGGS OF LAPWING.

Close to the terrace where I rest this quiet Sabbath morning, sheltered from the strong wind and refreshed by the glorious inbreathing of the sunlit air, a Tree Pipit is heard singing in perfect rhapsody. It nests somewhere among the dense tufts of grasses under the shade of an Oak towering in the foreground, but, so far, its homestead has escaped detection. Its watch-tower is a dead branch of the Oak in front of me, and, from this coign of vantage, the lyrical bird pours forth its sweet lilting song. A Pied Wagtail comes to drink at the water vase near the stone



steps, the crevices of the latter being festooned with various dwarf plants which blossom from early Spring to Autumn. The Wagtail is followed later by a gaudy male Chaffinch, his ruddy breast all aglow with a feast of colour.

One of the characteristic plant associations of Homewood's undergrowth is the Bramble, hence the number of shy Warblers, Chiff-Chaffs, Willow Wrens, Blackcaps, and Whitethroats which haunt this Hertfordshire homestead. Its cousin, the Dewberry, is already in flower, but the Bramble's "blossomy diadem," as Owen Meredith would say, is not just yet. When the fragile blossoms do unroll, crumpled in bud, open wide in after time, the Ringlet Butterfly will be a constant visitor. Later still, when the rich clusters of blackberries appear, the hungry Greenfinch, Thrush, Starling, and other fruit-loving birds, will take toll from the luscious berries. And so will man!

Let us saunter into the wood, where, under the shade of the trees, we shall find it cool and refreshing this June morning, for the sun is getting higher in the Heavens, and the comparative quietness of the birds betokens the coming heat of noonday. Do I not remember my visit to this pleasant little wood one wintry day last January? The whole woodland was then enveloped in snow and frost. At midday a rapid thaw set in, and, as I trudged through the slush at nightfall, I was still full of hope for better and brighter days. Now that happy consummation has come to pass. What magic has happened in the meantime, in spite of wars that rage, and governments that fall!

I have with me for quiet meditation and inspiration this day in June a copy of the *Selected Poems of Robert, first Earl of Lytton* (Owen Meredith), and, as I turn casually over the leaves of this fragrant volume, fresh from the hands of the poet's loving consort, my hostess to-day, my eye alights on never-to-be-forgotten word pictures, which I recite aloud to myself as emblematical of the Spring that has just passed:—

"The Violets meet, and disport themselves,  
Under the trees, by tens and twelves.  
The timorous Cowslips, one by one,  
Trembling, chilly, atiptoe stand  
On little hillocks and knolls alone;  
Watchful pickets, that wave a hand  
For signal sure that the snow is gone,  
Then around them call their comrades all  
In a multitudinous, mirthful band;

Till the field is so fill'd with grass and flowers  
That wherever, with flashing footsteps, fall  
The sweet, fleet, silvery April showers,  
They never can touch the earth, which is  
Cover'd all over with Crocuses,  
And the clustering gleam of the Buttercup,  
And the blithe grass blades that stand right up  
And make themselves small, to leave room for all  
The nameless blossoms that nestle between  
Their sheltering stems in the herbage green ;  
Sharp little soldiers, trusty and true,  
Side by side in good order due ;  
Arms straight down, and heads forward set,  
And saucily-pointed bayonet."

Thus Owen Meredith sings in his beautiful poem "The Thistle," a flower's ballad which I commend the reader to become intimately acquainted with at the earliest opportunity.

I notice, as I pass on my way rejoicing, that the rich golden catkins of the male Sallow-bush on the right of the wood, in the clearing made to receive *the* home, have now departed, and the plant is in full leaf, but, on the opposite side of the drive, a mass of yellow Broom is afire with glory, and lights up the place in which it flourishes with matchless beauty.

The Anemones, which I stooped to caress on my last visit in April, have lost their fragile sepals (there are no petals), but I am able to discover the head of dry seeds which I find, on examination, are easily detached, and promise well for another season yet to be. There is a sudden disturbance of this quiet Sabbath hour, for a pilfering Jay darts across my green pathway, followed by a screaming Thrush, the latter much distressed because the former had purloined one of its callow young. The thief !

The snaky heads of Bracken are craftily unfolding and adding a new grace to the woodland vista at my feet, and the delicate leaves of the Wood Sorrel—a reveller in damp, shady places—are spread wide open after closure during the night hours.

The Wild Cherry has by leafy June shaken off its full bridal garments and is now in fruit, but its leaves are fresh and green, and appear intact. The Hornbeam's leaves, however, are all more or less riddled with holes, sure evidence that there are hosts of larvæ here which find the leaves of this plant suitable to their "taste." I pass on my way enchanted, a suitable word to employ, because, near by, the Enchanter's Nightshade is fast making headway, though, let it be written, I have never been able to



discover *why* this familiar woodland plant has acquired the forefront of its English name.

I reach a less-frequented path, which runs horizontally across the wood. It is damp in places, and, as I wander along, patches of Wood Loosestrife, or Yellow Pimpernel, greet me, together with Tormentil, and tall spikes of Bugle.

Homewood is for the most part an Oak-wood, with Hornbeams and Brambles as close companions. Where the Hornbeam has formed a dense plant-association, there is little chance for any other vegetable growth to anchor, for, on my right, there is little, or no, undergrowth. The grassy pathway divides the Hornbeam plantation from the richly-studded Oakland on my left, but here the Bramble and other plants are able to flourish owing to the tallness of the Oaks allowing free access of light and air. The Hornbeam colony shuts out the light, and nought but fallen leaves carpet the ground beneath the green canopy above. Crane Flies are disporting themselves in the taller herbage, and move reluctantly onward even when coaxed so to do, and a belated Jack-in-the-Pulpit (Wild Arum) provides an object lesson for my hostess, who has now joined me.



FIG. 79.—NEST AND EGGS OF TURTLE DOVE.

The bright pink petals of Herb Robert light up the scene hereabouts, and a Turtle Dove slips quietly off her frail platform of sticks, among which two milk-white eggs seem perilously suspended (Fig. 79).

Already the June sunshine is warning us of the feast of Wild (and Garden !) Strawberries, which will soon be ready for man and beast. The green fruits are well formed, and I remember

how the luscious berries quenched my thirst when I visited Homewood last Summer time.

Where the wood is of a more open character, a stately Birch rears its queenly head, and graceful Bluebells still linger in a belt of blue. A week previous I gathered near here both Primroses and Bluebells in blossom at the same time. They were growing side by side, surely an uncommon event in rural England worthy of note.

Swifts are careering above the tree-tops at breakneck speed, screaming as they go; Swallows are twittering pleasantly as if to give thanksgiving on the Lord's day for the great abundance of insect life which the glorious Summer weather of May and early June brought unto them, and a loud-voiced Wren, not to be despised because of smallness of stature, suddenly bursts into song from the briar bush opposite. On disturbing the singer, it creeps, mouse-like, through the bushes, and then flits in front of us more like a butterfly than a bird. The cause of its jubilancy is now apparent, for, among a mass of dead bramble leaves, its globular nest is deftly woven. A Chaffinch has young in a hawthorn bush not far away, and is so conscious of protection that, as we peer in, the female bird sits tight upon her well-fledged young. So well-grown are the latter, that it is with difficulty we are able to discern young birds from old. We remark upon the smallness of the family nursery for such big chicks, and then, her patience exhausted, the mother-bird leaves her homestead, and utters repeated calls of distress. Her mate is perched on a neighbouring tree, and cheers her with his high-pitched love-song. But it is all to no purpose, as the weeping female has all her thoughts centred upon the well-being, and safety, of her expectant brood. Fearful lest our presence should disturb her unduly, we hie away, to discover, a few yards distant, the mossy nest of a Hedge Accentor, difficult of access. The young have flown, but an addled, or infertile, egg remains in the nest as evidence of this faithful little bird's presence in almost the same spot, where, in previous years, it has reared a family.

I retrace my footsteps towards the house, greeted, in passing, by a friendly Goat, tethered among luxuriant grass near the entrance gates, and, later, by the newest arrival at Homewood in the person of Brownie, a six weeks' old Terrier pup. Brownie, full of play, persists in following me, and is intensely interested in my bird nesting expedition. Tung, up at the window, is far



less friendly, for he resents the appearance of this Terrier stranger, but will doubtless have concluded peace terms before an autograph copy of this volume is added to the other loving tomes in the Homewood library.

And so the pleasant day passes, by means of walks and talks in wood and garden, and by the firelight's gleam. Happy hours are all too quickly spent, and, when the household has retired and left me strangely alone, the call of a wandering Tawny Owl, just aroused from slumber, sends a shudder coursing through my veins, and I too steal quietly to rest.



FIG. 80.—TAWNY OWL.

Reaching my bedroom, I cannot even now finally retire, for a beautiful full June moon invites me to lean out of the window, and listen to the gentle lullaby produced by the wind among the heavily-foliaged trees. The Owl is closer now, and, without warning, a Nightingale within earshot utters a rippling note, and ceases as suddenly as it began. It sounded strange during the shadowy stillness of the moonlit hour.

I have taken the precious volume of "Selected Poems" to

my bedroom, and, as my midnight supplication, I repeat softly with Owen Meredith :—

“Thou—God ! before whose sleepless eye not even in vain the Sparrows fall,  
Receive, sustain me ! Sanctify my soul. Thou know’st, Thou lovest all.  
Too weak to walk alone—I see Thy hand : I falter back to Thee.”

And then—to slumber until the Cuckoo again awakened me.





## CHAPTER XIV

### THE WILDERNESS

“The Muse of Rural Life, I link the races,  
Nature renews my chaplet with her Mays;  
To thee the Lark sings as it sung to Horace,  
And here, as in Ustica, Horace sings.”

THUS wrote Bulwer Lytton when he planned the Horace garden at Knebworth, the stately Hertfordshire home of the Lyttons, and adjoining this secluded garden there is situate the Wilderness I have to write about in this Chapter. This latter was designed by Robert, First Earl of Lytton, Courtier and Poet, in 1881.

Although called the wilderness from the fact that here Nature is allowed to follow her own unfettered course, if I was invited to act as sponsor at a rechristening of this charming and never-to-be-forgotten retreat, I would name it the Naturalists' Paradise. This memorable May-day, as I wandered amid the tangled grasses of the wilderness and looked at the blue sky above, there stole into my heart thoughts that, as Wordsworth would say, “do lie too deep for tears.” From bush and copse, briar and thorn, there resounded sweet bird music from a thousand instrumental throats, which acted and reacted as Spring magic upon the two silent witnesses of this jubilancy of song. Sprightly Chaffinches, their wings flashing with white as they darted past, vied with one another in supremacy of voice, and with Willow Warblers—the piccolo soloists—melodious Blackcaps, and persistent Chiff-Chaffs, largely constituted the chief performers in the feathered choir of the wilderness.

To one not versed in bird music, or knowing little of the renewal of Nature's chaplet with the May, about which the famous Novelist wrote, as set out at the head of this chapter, the wilderness would doubtless prove just a pleasant place in which to wander, and that is all. To the devoted student of Nature, however, it is a happy hunting ground for wild creatures—both animals and plants—the like of which I have never known excelled in a given area.

The casual visitor would, of necessity, stand spellbound when one of the stately trees, bushes, or shrubs, now festooned with a wealth of gracious blossom, came into view, but the Nature worshipper must needs obey the command which comes to him to go down on bended knee, so as to serve the double purpose of seeing the flowers to better advantage, silhouetted against the blue of a cloudless sky, and to utter silent supplication for the privilege of witnessing such a sight in rural England in the merry month of May.

The grasses are studded with the faint lilac of departing Cuckoo flowers, which are here discovered in various gradations of colour. In the cool shade of the Horace garden, which is entirely canopied with green, the blossoms of this plant are all silver-white, as Shakespeare pictured them. Out in the open the colour, although subdued, is more noticeable. Over the surface of the silent pool in this secluded retreat, guarded by the time-worn statues which Bulwer Lytton erected and epitaphed, whole regiments of airy insects coquet in a shaft of sunlight, which glints through an opening in the trees, and even the faint wind that is stirring is sufficient to change their course, first this way, and then that.

Fish are sunning themselves near the surface, startling the wayfarer with their sudden splash, and a sedate Robin utters its plaintive dirge from the sturdy limb of an aged Oak overhanging the water.

The sweet-scented Poet's Narcissus peoples the wilderness with graceful dignity and matchless beauty, replacing the golden glory of the curtsying Daffodil, which flourishes here in large numbers earlier in the year, but now only traceable by its masses of green, sword-shaped leaves. The pure white blossoms of the Wild Strawberry strike the eye as cool and refreshing in the torrid heat of this glorious May day, and the bright blue of the Bugle adds a touch of colour to the ground, where, by its presence, one is made aware of the dampness of the surroundings. A patch of blue Speedwell anchored hard by might well have fallen from the sky above, so matchless is its purity and comeliness.

In a dense colony of Rose bushes, which promise well for the crowning of the Queen of Flowers in leafy June, a lyrical Black-cap and his solicitous consort have placed their fragile cradle. It is deftly suspended among the maze of prickly branches, and, as we peer into the tangled growth, the female bird slips silently off her nest, whilst the male, revelling in the pleasant anticipa-



tion of baby birds yet to be born, utters a super-song, excellent in quality, rich in sweet cadence, as if to cheer the brooding dame.

Willow Warblers abound in the wilderness, for they find the large tufts of grass suitable places in which to secrete their oval-shaped nests, profusely lined with feathers. It needs a practised eye, and an earnest search, to discover the well-hidden home-stead of this Summer visitor, and its cousin, the Chiff-Chaff, likewise a tree dweller, also resorts to the earth when entering upon domestic duties.

Beds of Stinging Nettles are allowed to run riot in the wilderness, and keen competition exists among the new growths to catch up in stature the browned stems of last year. Here search may be made for the banded Snail, as well as the larvæ of the Small Tortoiseshell and Peacock Butterflies, and the frail nest of the Greater Whitethroat. A great haunter of Nettles, small wonder, perhaps, that county people have christened this feathered acrobat the Nettle Monger, or Creeper, for it loves to dwell among these plant warriors when Summer time comes round again.

Peering into the tall Poplars we discover, after much searching, a few stray eggs of the Puss Moth, proving that the female insect which pupated last June has made a safe exit from her remarkable cocoon, placed perchance upon the trunk of the tree. She lived for some weeks last year as a voracious larva, feeding upon the leathery leaves until such time as she had eaten sufficient to enable her to be prepared for a period of quiescence as a pupa until May of the succeeding year.

Around the hawthorn bushes a dipterous insect, known as Saint Mark's Fly, is disporting itself in large numbers. As we look up we are able to see quite plainly the curious way in which the legs are held hanging downwards, and the mourning attire that is worn. The presence of this insect probably accounts for several pairs of Spotted Flycatchers which haunt the wilderness, for, as we look towards the dark recess of an adjacent tree, we are almost sure to discern the unmistakable form of this most useful bird. If we stalk it close enough we shall be able to hear the rapid snap of the beak, telling of another insect prisoner safely interned, and, as if in thanksgiving for such an abundant food supply near at hand, the wary bird, soberly clad and unobtrusive, utters a subdued "utick, utick," by way of benediction. The fly-catching of this little-known bird is remarkable. The insect legions of which it rids the air must go to make up a

stupendous total during its sojourn among us. It is pleasant to see it haunting the old wall near the kitchen garden, where it has nested in previous years, and to realise that, although in the Autumn it tripped away to Africa, it has safely returned to the old-loved spot, so that this pleasant wilderness shall not mourn its loss.



FIG. 81.—TURTLE DOVE.

From the thick shade of a fast-blossoming thorn a Turtle Dove is incessantly uttering its amorous love-song, soothing to the ear, and possessing a rustic simplicity all its own. Presently the bird takes to wing, but we notice how noiseless it is as compared with the restless manœuvres of the clamorous Ring Dove, which, unlike the Turtle Dove, is a resident in the surrounding woods. As the Summer visitor sweeps through an open vista, it displays a prominent fan-shaped tail having white edges, and pleases our sense of sight as the distant voice of a vagrant Cuckoo does our sense of hearing.

Various species of Titmice simply revel in the wilderness, and the Great Tit is particularly gladsome this May morning, for his high-pitched metallic notes ring out loud and clear. He, at least, is determined to assert himself in the riot of bird song which gives to our present hunting ground one of its greatest



charms. I have visited the wilderness in the early days of a New Year, and even then the lilting song of a solitary Mistle Thrush acted as an overture for the great orchestra to which I am such an attentive listener to-day.

High up in a spruce fir a Greenfinch is responding to the love passion that is within him, and I never remember hearing this bird sing to greater advantage. On occasions this bird deceives the listener with the variety of the notes it utters, and I have often been perplexed as to its identity.

Swifts are careering through the air at breakneck speed, their sickle-shaped wings plainly visible against the clear sky; Starlings hawk in the air after insect prey, and chatter indescribable notes when their fly-catching is suspended.

A Cockchafer falls at our feet. We pick it up for an examination of its fan-like antennæ, the joints of which are now folded up, and, after remarking that this insect is one of the favourite repasts of the Nightjar, we give the creature its liberty, and pass on to sights and sounds anew.

We cannot help noticing a whirr of wings towards the Horace garden, a sudden disturbance of the sublime peace which there prevails. A brace of Partridges have taken up their abode in the wilderness, and the Terrier which followed us loyally all day had put the birds to flight. Hence the commotion.

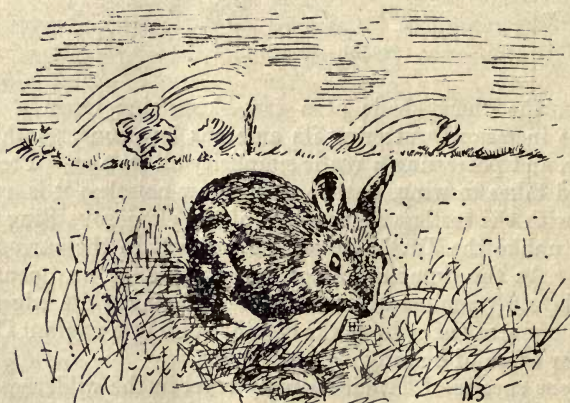


FIG. 82.—WILD RABBIT

Rabbits are likewise sent speeding away hot afoot from the seclusion of a neighbouring thicket, and a crafty Weasel only

just escaped with its life by scampering up the bole of a giant tree, where, in the large growth of a witches'-broom, it was able to take cover until the danger that threatened had passed.

Swallows and Martins pursue their aerial course the whole day long, taking toll of the insect life that abounds in the wilderness as a corollary of the luxuriance of the vegetation. The former nest in the water tower of the mansion, and dart with unerring aim through the lead lights where the glass is vacant. As one stands watching them, it is astonishing to notice the ease and facility with which ingress is obtained, and pleasant to reflect that these harbingers of Summer are increasing their numbers here year by year.

A Blue Tit has a cosy nest and eggs in one of the nesting boxes put up for the birds, but the Linnet prefers to choose one of the yew hedges as a nesting site. Sometimes the Blackcap shows a partiality for small holly bushes in the coppice adjoining the wilderness, surely an unfamiliar nesting haunt, and, amid the broad leaves of the sycamore, the rarer Garden Warbler delights to wander, pouring out meanwhile its little varied, but beautiful, song. He who has not heard a Garden Warbler sing at its best has yet to make acquaintance with one of the finest British song-birds the wilderness shelters.



FIG. 83.—GOLDFINCH.



Taking cover from the noonday heat under a wide-spreading Oak of massive grandeur, we begin to moralise upon the service rendered by Nature study to this, the twentieth century, especially as we are inspired by the lyrical notes of a Goldfinch (Fig. 83) in the tree overhead. It is a new bird for wilderness and garden, and we are delighted to both see and hear it, because last year we had strong suspicion that it was one of the rare bird tenants hereabouts, but could not settle the point satisfactorily.

Coming back to our moralising after this pleasant diversion, we may interpolate that, apart from the delight which Nature gives to every normal person, its study is capable of far-reaching service in human development, and, once we realise this effect on the individual, we can perhaps appraise its value collectively in the education of the race.

Training the eye and ear brightens the intelligence, for example, when the children of the school gardening class, these little planters and growers—sowers and reapers—begin to take an interest in their work, and have to deal with proper names, as well as keep correct details, as they are driven with increased zest to consult their books for information. Thus these young cultivators, led from careful attention to a few forms of life, become observant of many, and a weekly ramble out-of-doors—such as all schools should encourage under the expert guidance of a Field Naturalist—would prove much more thought-provoking than indoor cramming.

These healthy lessons, systematically associated with practical ground-work, soon establishes a love for Nature which leads from the particular to the universal, and is indestructible in later life. Besides this, I am convinced that Nature study tends to foster accurate statement, candour of mind, and breadth of outlook upon life.

To the town-bred, dim-eyed childern of the cigarette—blowing their smoke between—the field is a dull wilderness, and far different to the wilderness among whose glories we are now seated, whereas to those who were country-bred the landscape is vivid with life, its seasonal and diurnal changes possessing an inexhaustible charm. The true country-lover finds Mother Earth abounding in pleasurable toils, and manifold endearments!

Not that these influences fail to break in everywhere, and inundate all places, but in the city they find people preoccupied. There, one is too busy with things which do not really matter to take pleasure in them. As to the invasion of what is called Wild

Nature into the crowded haunts of men, we all know the ubiquity of the bird, and in regard to vegetable life, it was found a few years since that no less than twenty-eight wild flowering plants had established themselves within two years on a building plot in Farringdon Street—struggling to see the skies. Nevertheless, the city somehow deadens that finer sense of the potencies of Nature which cannot fail to awaken in the wilderness.

Emerson reminds us that in solitary places, at the gates of the forest, is to be found a sanctity which shames our religions, and somewhere speaks of this enchantment as medicinal for body and soul.

“The forest is my loyal friend, like God it useth me.”

He says the meeting of the sky and earth may be seen from the nearest hillock, as well as from the tops of the Alleghanies. And we are elsewhere admonished that differences exist, not so much in Nature, as in the eye of the beholder.

The Naturalist, dealing with a first-hand study of *live*, not dead, things, does not suffer from the limitations incident to certain specialists. However grouped or distributed, all the subjects of his study are, more or less, interdependent, and bound together, so that he can, like Macgillivray the ornithologist, take all natural science for his province.

A sincere study of Nature seems calculated to inspire, if not a scientific, a sympathetic imagination, and a livelier feeling for “things both great and small.” Its service will stir the heart as well as the intellect. The better we understand our neighbours, the more we learn the fascinating life histories of plants and animals, the kindlier is the interest we are inclined to take in them. And the fuller knowledge we get of sentient life generally, the clearer will grow our insight into the marvellous environment which hems us all in.

Our motto here in the wilderness may appropriately be that of our English Nature Poet: “To the solid ground of Nature trusts the mind which builds for aye,” and I may well conclude by quoting some striking aphorisms of Goethe, translated by Huxley. As these are as arresting to-day as when written, no apology is needed for recalling some of them:—

“Nature! She surrounds us and locks us in her grasp: powerless to leave her, and powerless to come closer to her. She speaks to us incessantly, yet betrays not her secret. Individuality seems to be all her aim, and she cares nothing for individuals.



She is always building up, and always destroying. Her workshop is inaccessible. Nature lives in her children only, and the Mother, where is she ? There is constant life, motion, and development in her, and yet she remains where she was. Of rest she knows nothing, and to all stagnation has affixed her curse. The meaning of the whole she keeps to herself, and no one can learn it of her. Who does not see her everywhere, sees her nowhere aright. She rejoices in illusion. If a man destroys this in himself and others, she punishes him like the hardest tyrant. If he follows her in confidence, she presses him to her heart as it were her child.

“ Her children are numberless. To none is she wholly a niggard ; but she has her favourites, on whom she lavishes much, and for them she makes many a sacrifice. Life is her fairest invention, and Death her device for having life in abundance.

“ Her crown is love—through love alone can we come near her. She isolates everything that she may draw everything together. With a draught from the cup of love she repays for a life of trouble. She has placed me in this world : she will also lead me out of it. I trust myself to her.”

Thus far Goethe, and I will finish with four lines from an unknown author :—

“ Though baffled seers cannot impart,  
The secret of its labouring heart,  
Throb thine with Nature's throbbing breast  
And all is clear from East to West.”

Thus did the wilderness inspire me, and the memories of that gorgeous May day will often come back to me like a draught of Spring sunshine, whenever my wayward soul requires a stimulant, such as Nature alone has to offer.

## CHAPTER XV

### ROUND HOUSE AND GARDEN

A GARDEN in the country may be made not only a pleasant (and profitable) part of one's home-life, but may also become the visiting, or abiding, place of a number of interesting creatures, which can be watched to great advantage under constant observation close at hand. Many people complain of the lack of opportunity they possess for studying Nature, yet they have around them in the garden an abundance of wild life which is worthy of careful study. There, one will discover friends, as well as foes, and, to those who pursue the matter intelligently, it will come as a surprise when the meagre list of serious enemies is made out. There always appears to be some compensating advantage, for Nature never allows her wonderful balance to be upset, and is for ever striving to do her utmost to give all her children a fair chance in the struggle for existence.

It has long been my opinion that everyone who owns a garden should possess some knowledge of natural history, as, not only is additional pleasure acquired as a result, but such knowledge can be put to practical use in the cultivation of flowers, fruit, and vegetables, where, under less happier circumstances, blunders are sure to be made.

To enjoy a garden to its fullest extent it is preferable to plan and plot a rough, untilled area oneself, and, although I am constantly visiting other gardens which sometimes make me envious, perhaps because they are more pleasantly situated, I would not exchange my own 747 square yards of ground for a like area elsewhere, because I happen to be my own designer, and my own gardener.

Let me tell you how my garden was planned, and planted. When I first took over my plot it was covered with rough grass and a profusion of wild flowers, such as Bindweed, Dandelion, Parsnip, Ragwort, Thistle, and the rest. It sheltered countless numbers of insect and other pests, and was made up of stiff clay soil. The point occurred to me that, to obtain any real measure



of success, the first thing to do was to entirely destroy as many of the weeds and animal pests as possible, and it was also important to bear in mind the easier working of the clay land in days to come. I had the top spit of earth removed all over the plot, and, having built up two large heaps, I burnt same for several days, until the weedy sods had been transformed into rich red earth, such as one sees on railway banks. Meanwhile, the soil was double-trenched all over, and, when this was completed, the burnt earth was spread over the surface, and then the whole dug over again. All was then ready for staking out and planting. The two large heaps were kept afire with small coal night and day, and, although it was an expensive initial item, it has proved its worth over and over again.

The ground sloped naturally from south to north, or back to front, and, as I was keen upon having a level tract of lawn, it was necessary to transfer many barrow loads of soil so as to make up the ground where the fall was lowest near the house, and work towards the higher ground in the rear. This having been successfully accomplished, and the grass plot measured and staked out, the next item was to prepare a five feet six inches wide border on either side, running lengthwise from the end of the lawn nearest the house, to where the ground was now banked up at its natural level.

As with most people who make a garden, I was anxious to do all that was possible to get same established as quickly as possible, but I realised that before this could be accomplished it was necessary to have a living barrier all round my plot (east, west and south), so as to secure shelter from the wind, and to afford privacy. I, therefore, planted Birches, Laurels, Limes, Poplars, Sycamores, and a few Cypressess along the west border, close to my boundary line, carrying same right to the end of the plot, thence along the southern extremity, and as far as the raised portion of the ground on the east, marked slope on plan (Fig. 84). The reason I did not extend this living fence right along the east boundary line was that the border there planned was for Roses, and the trees and bushes of my neighbour on that side already made a fair screen for the Queen of Flowers without being too close, and thus impeding their growth. Laburnum, Mountain Ash, Sea Buckthorn, Spindle, Syringa, a seedling Hawthorn or two already in situ on the opposite side of my eastern border, made a capital boundary, and Roses to be grown to perfection must be allowed plenty of light, air, and room. I raised the

two borders as high as possible, and allowed a gentle slope lengthwise for drainage, banking up the edges with turf. The two steep banks at the end of the lawn I also treated in a like manner. The western border was reserved for perennials such as Aubretia, Corydalis, Lilies, Yellow Loosestrife, Pinks, Polyanthus, Primrose, Sedum, Solomon's Seal, Violet, and small flowering shrubs such as Berberis, Box, Cotoneaster, Cupressus, Flowering Currant, Laurustinus, Lavender, Olearia, Osmanthus, Rosemary, Veronica, Yew, and others.

Right round the edge of both borders I planted Emperor Daffodils, which increase their number of blossoms each year. In 1915 there were 210 blossoms ; in 1916, 320, and in 1917, 500. I leave the bulbs in the ground all the year through, taking care when forking over, or hoeing, not to damage same.

The top part of the garden (E and G on plan) was reserved for a few fruit trees and vegetables, the former consisting of Apples, Pears, and Plums, with Mint, Parsley, Sage, and Thyme.

After the lawn was finished, I found it had worked out larger than I anticipated, the border on either side looked too narrow, and the whole plot rather ill-balanced. Rather than increase the width of the east and west borders after becoming established, I made a two-feet wide border about four feet away, of sufficient length (40 feet) to take twelve Cordon Apple trees on each side, with an Espalier Pear the same distance in front of the steep banks at the end of the grass (see C on plan, page 209). Where this narrow border ended near the house, I placed a rustic arch on either side so as to form an entrance walk to the borders. The arches are now covered with the American Pillar Rose, and, to form an opening in the narrow border at the end, I inserted a wire arch with the same accommodating Rose on either side, and this has now rounded off the scheme to advantage.

The Cordon Apples I planted on the east side were Bismarck, Beauty of Bath, Cox's Orange Pippin, King of the Pippins, and Warner's King, and on the west side Allington Pippin, Blenheim Orange, Devonshire Quarrenden, Gascoigne's Scarlet Seedling, and Worcester Pearmain. The two Espalier Pears on either side of the middle arch near the steps (H) are Fertility, and Flemish Beauty. My other fruit trees in the little patch of higher kitchen garden at the rear (E) are :—

Apples : Allington Pippin, Beauty of Bath, Domino, Early Margaret, James Grieve, Grenadier, Lane's Prince Albert, Loddington Seedling, Lord Derby, and Peasgood's Nonsuch.



Pears : Louis Bon of Jersey, Williams' Bon Chretien, and Winter Nelis.

Plums : Kirk's Blue Plum, Rivers's Early Prolific, and Victoria.

I plant Potatoes for main crop, and also manage to find room for a few Beans, Cabbages, Carrots, Onions, Parsnips, and Peas. The front garden of the house has the American Pillar Rose as a living fence, with a substantial square arch of the same prolific climber over the gateway, and three small shrubberies, mostly consisting of Evergreens, such as Aucuba, Box, Euonymus, Cypress, Holly, Portugal Laurel, Veronica, and Yew, with deciduous shrubs such as Arbutus (Strawberry Tree), Berberis, Coton-easter, Forsythia, Judas Tree, Pyrus, and Spiræa.

This brief survey will give the reader a fair idea of the number and kind of plants which have habitation in my garden, and as the total is considerable for so small a plot, and they are increasing in size each year, small wonder need exist at the variety of wild life which my garden shelters. The prevailing wind is south-west, and, knowing this beforehand, decided me to plant mostly Evergreens as western and southern boundaries, with, as I have proved, most satisfactory results. I use bone meal as a fertiliser, and rarely water. I believe in feeding from below ground, rather than cold shower baths from above.

The simple outline plan on page 209 will afford a better idea than a written description of how my garden looked when completed. The scale is 20 feet to 1 inch. The following are the explanations of the initial letters :—

- A. Rose border, 5 feet 6 inches wide.
  - B. Grass Walks between two borders, 3 feet 9 inches wide.
  - C. Cordon Apple borders, 2 feet wide.
  - D. Herbaceous border, Flowering Shrubs, etc., 5 feet 6 inches wide.
  - E. Small Vegetable and Fruit Garden.
  - F. Ashphalted T-shaped path.
  - G. Top border for Cordon Fruit Trees, 6 feet wide.
  - H. Steps from lawn to kitchen garden.
  - J. Ornamental Iron Flower Vase on pedestal, containing Geraniums. This acts as a set piece for the whole garden.
- Width of garden, 43 feet. Length of back garden, 116 feet.





I have noted over fifty different kinds of bird visitors in the garden, and, as far as I can tell, none of these perpetrate any harm worth mentioning. Sparrows build their untidy homes every year in the nest boxes close to the dining-room door, and, although they are fond of nipping off the petals of Primrose or Polyanthus in Spring, they do far more good than harm. They pick off Aphides and caterpillars, and are fond of catching Gnats.

The Robin is a constant visitor, and it is delightful to watch this lustrous-eyed bird of stately gait and ruddy breast bathing in the earthenware pan of water which we put out for the birds all the year round. Once only has the Redbreast nested in the garden, but it was an auspicious event, as I introduced into the nest an egg of the Yellow Bunting, with the result that the Robins not only reared their own young, but also brought up the baby Bunting, whose picture is here shown.



FIG. 85.—YOUNG YELLOW BUNTING.

Our nesting boxes always attract Blue and Great Tits, and their visits are doubly welcome in Winter, when we fill coconut husks with boiled fat. We are never tired of watching their engaging exhibitions of balancing on the suspended husk, and

noting the unfailing regularity with which they contrive to arrive for their own provender at our mealtime.

In the Laurel, Yew, and Arbor Vitæ, the sooty Blackbird, speckled Thrush, and homely Hedge Accentor nest every year, and great pleasure is derived from watching the fledglings until they leave the nest. Swallows, Martins, and Swifts wheel round the house and garden all through the long days of Summer, and impudent Starlings perch on the chimney pots, and utter indescribable notes when in a jocund frame of mind.

Saucy Jays come to steal the stray peas early in the morning; the handsome Bullfinch is also an early visitor, when the fruit buds are ready, and White-throats, both Lesser and Greater, together with Willow Wren and Chiff-Chaff, come to feed on the Apple and Rose Aphids. I do not grow soft fruits so that I know what attracts them, and, moreover, I have watched these soft-billed birds at their useful work.

The Chaffinch is, for some unknown reason, a rare garden visitor with me, but the Greenfinch is fond of eating the seeds of a Teasel plant which I found attracted this species, and the sprightly Goldfinch, and even the wee Goldcrest, visits the shrubs in the front garden for insect food. Cotoneaster berries, richly decorative in Autumn, are much sought after by Thrushes, Blackbirds, and Redwings, and what few snails there exist are made short work of by the first-named.

The Cuckoo often flies over during May and June, and I frequently espy a Kestrel hovering aloft in search of prey. At night the ghostly form of a Barn, or Long-eared, Owl flits by the garden lover in the fading light, and the Little Owl is a frequent haunter of the immediate neighbourhood. I am fortunate in my bird tenants as, opposite my house, there is a wooded area of eighty acres, which, if permitted to remain untouched, will for many years constitute a pleasant sanctuary for wild life, and it is largely owing to this that



FIG. 86.—LONG-EARED OWL.



so many wild creatures tenant my little plot, and bring joy unto my heart.

In some extraordinary way Wild Rabbits manage to get into the garden underneath the wire fence (put up to keep Rabbits and Dogs at bay !), but they only come occasionally, and fortunately restrict attention to the luscious clover which I sowed on



FIG. 87.—LONG-TAILED FIELD MOUSE.

my lawn so as to ensure some amount of moisture (and greenery) in dry weather, when the grass becomes scorched. It is the best dry-weather plant with which I am acquainted, and can be strongly recommended to those whose lawn has been made upon dry soil, such as, after burning, mine has proved to be.

My stock of Earthworms is increasing now that the burnt earth has had time to recover, and the soil is more humid, but, in spite of this, the Mole is an infrequent visitor, although of common occurrence in the adjoining fields.

The Brown Rat sometimes scuttles across one's path at nightfall, but is

in no way troublesome, and the House Mouse is rarely seen. Its cousin, the Long-tailed Field Mouse, however, lives underground in the garden, as two freshly-worked holes (one among the plants of the western border, and another in one of the steep grass banks dividing lawn from kitchen garden), amply demonstrate. Sometimes this agile little beast comes into the house, and, although it does not appear to be guilty of purloining food, the good housewife cannot tolerate it in the upstairs cupboards, and its numbers have, in consequence, to be reduced.

It affords me great pleasure to know that this elegant little mammal finds my garden a suitable place in which to reside,

and, although I rarely catch sight of it in the daytime, I am made aware of its presence by inserting a leaf, or piece of paper, in the entrance to its home, for, sure enough, the tell-tale stoppage always disappears by the following morning.

I cannot exactly discover what the Long-tailed Field Mouse lives on in my garden as, except when the potato tubers are formed, and the peas are sown, I can find no evidence of any depredation. I believe it collects hips and haws in Winter, and that it has the habit of taking these wild fruits into a nesting box which then serves as a larder. I find many remains there each Spring, when I clean the bird homes out ready for their feathered tenants, and I strongly suspect the mammal under review as the culprit. I have disturbed it several times when thus engaged. Birds also use the boxes in Winter for roosting purposes.

Sometimes the Bank Vole comes to see me, and its near relative the Short-tailed Field Vole, but they are not residents, as the conditions are apparently too artificial to be suited to their needs. The former delights in ivy-covered banks and copses, and there search should be made for it. It is a winsome little beast.

The Pipistrelle Bat hides by day somewhere in the neighbourhood, and at night steals from its retreat to hawk over the garden for winged prey, and its larger cousin, the Long-eared Bat, may be espied at nightfall taking toll, maybe, of the cockchafer, or an assortment of large moths which fly in at the open doorway when the gas is lit.

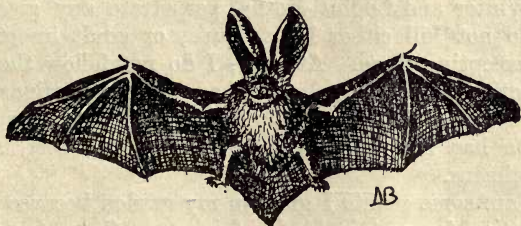


FIG. 88.—LONG-EARED BAT.

The burnt soil seems to have discouraged both Slug and Snail, and I rarely see either, excepting small specimens of the first mentioned, and for this I am devoutly thankful. Nor can I discover any serious trace of their ravages.

My greatest *enemies* may be counted on the fingers of one hand, consisting of larvæ which eat my Rose leaves and flower



buds, Wasps when the fruit is ripening, and the amazing Aphis which infests the Rosebuds and Apples. To cope with the Green Fly is a formidable task, and I have never discovered any more satisfactory method, distasteful though it is, than picking them off, and crushing between thumb and finger.

I may here give a brief alphabetical list of my favourite Roses, which I grow successfully for pleasure, and not for exhibition :— Betty, Caroline Testout, Gruss An Teplitz, Harry Kirk, Hugh Dickson, Joseph Hill, Lady Battersea, Lady Hillingdon, Lyon, Madame Abel Chatenay, Marie Van Houtte, Melaine Soupert, Mons Paul Lede, Pharasaer, Viscountess Folkestone, and over



FIG. 89.—RED ADMIRAL BUTTERFLY.

NB

the verandah, that sweetly-scented and clean-growing climber, Allister Stella Grey. All these varieties are profuse bloomers, and may be safely recommended to any of my readers desirous of having a small collection of these beautiful garden flowers.

Of the large array of Butterflies, Moths, and other insects of the garden it is not possible

for me to set out even a bare list. None, with the exception of the Winter and Codlin Moths, perpetrate any great harm, and I do not kill either larva, pupa, or adult insect of any others, excepting these. At least, I do not follow the precept of a relative of my own, who has an extraordinary desire to kill every living thing found in his garden, except the plants he has himself put in, and those, at best, are very poor specimens.

There are some plants I grow in my garden because they are an attraction for certain kinds of insects. Such, for example, is the Sedum. I cannot give the variety, but it is of compact growth, has large heads of pink blossom in the Autumn, at a time when the mixed border requires brightening, and it is of unfailing attraction for that handsome Butterfly, the Red Admiral. I always look forward with pleasant anticipation to the advent of the Sedum's flat heads of bloom, and the visit of gay-clad Red Admirals, whose brilliant colours are beautifully

set off by the pink flowers whose wares are a sure lure for this reveller in the Autumn sunshine.

Of miscellaneous garden inhabitants there is not a lengthy list. Centipedes scuttle from beneath clods of earth, fallen leaves (Laurels are a great nuisance when shedding their coats, or when browned during a severe Winter), and other objects, and the sluggish Millipede may occasionally be discovered.

Spiders of various kinds tenant the garden, and are entirely beneficial, and, if an old Toad or two are introduced, additional benefits will accrue. The Toad is likely to make a more lengthy stay in a garden than the Frog, as it is less given to roaming, and, having found a suitable environment, takes kindly to it year after year.

The wily Hedgehog has attempted to inspect my garden plot, and one day a Hare bolted like a flash from under my feet as I opened the front gate. A proud Cock Pheasant, much to my delight, stalked in the latter one Summer's day as I sat writing at the open study window.

Brimstone Butterflies are fairly constant visitors owing to the near presence of the favourite food plant of the larva—Buckthorn—which grows in the hedge opposite. The Large and Small Garden White Butterflies are with us whenever the sun shines, together with velvety Peacocks, Small Tortoiseshells, and Orange Tips.

From this brief resumé the reader will obtain an impression of the keen delights which a garden brings to a lover of Nature, such as myself, and of the happy hours one may spend there in the fresh air, under the open sky, with soaring Larks and tinkling Meadow Pipits near at hand, and a wealth of floral treasures waiting to be caressed.

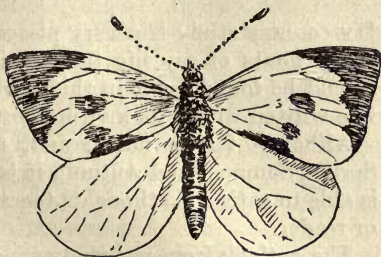


FIG. 90.—GARDEN WHITE BUTTERFLY. B



## CHAPTER XVI

### MY COUNTRY STUDY

My country study is a very pleasant sanctum, and, as I pass so many hours of my life therein, it is appropriate that a niche should be found for it in this book, especially as the book itself was written within its inviting portals.

Although facing north, and, therefore, cold in Winter, in Spring, Summer, and Autumn it is a welcome retreat, where one is able to gather his thoughts together for presentation to listener or reader.

The outlook from my study window is, for the best part of the year, refreshing and stimulating. As I write, I have almost within my grasp graceful clusters of the orange blossoms of Darwin's Barberry. The fine colour is lit up by the western sun, the rays of which fall warmly upon my face as I am seated at the writing-table this gorgeous evening in May. To the right of me a fine shrub of Portugal Laurel is putting on new growth, and transforming itself into a pyramid of green, as compared with the dead brown leaves which it recently possessed, the result of the severe Winter of 1916-17, and, near by, the delightful yellowy-green of *Cupressus Stewartii*, a favourite evergreen of mine, just catches my eye. Adjoining it, the golden chains of Laburnum blossom, and the unmatched beauty of a Pink Hawthorn, add a feast of colour, which, when one is straining for inspiration, is a tonic for both body and mind. As I have already told in the previous chapter of the plants which grow in my front garden, and the American Pillar Rose arch, which is one livid mass of colour when June is here, I need not elaborate further. I should tell the reader, however, that my country study looks out upon the Icknield Way from which, as I write, a fussy Humble Bee has just flown in through the open window. Hence this note!

This Icknield Way is the chief surviving ancient trackway connecting East Anglia, and the whole eastern half of the regions north of the Thames, with the west and the western half of the south of England. It is a pre-Roman road, of great historical

and topographical significance, and many British and Roman remains have been discovered hereabouts since my country study was first occupied a few years ago. Only a short distance away, in a gravel pit just off the Icknield, a late Celtic Cinerary Urn was unearthed by a workman in October 1912. It contained calcined bones, and a bronze connecting-link of a belt. Of elegant design and beautiful workmanship—a fine example of the early potter's art—the vessel measures 15 inches in height, with a maximum diameter of 6.3 inches. It may now be seen at Letchworth Museum, of which I have made mention in the concluding chapter.

Rudely fashioned flint implements made and used by early man, are constantly being picked up close to the study, and I discovered a few fragments, with fossil Belemnites and *Gryphæa incurva*, when the foundations for my house were excavated. I have also found several in the garden. Hard by, there are several Tumuli, and the site of a Roman Camp and Villa.

On the north side of the Icknield Way, looking from the study window, there is a belt of woodland consisting of Maple, Fir, Crab, Ash, Oak and other trees, and these form the northern boundary of an open space known as Norton Common. For some distance the Icknield borders this tract of country as it passes through Letchworth, and on the south side of the old road our pleasant country homes form the southern boundary. This old-established Common of Norton dates back to the time of Offa, King of Mercia, of whom I have already had something to relate in Chapter II. It is the sole surviving piece of primeval scrub in the district, all the other land having been reclaimed by the builder and husbandman, and the former remains to-day, as I wander past gnarled Hawthorns, rank Elders, sturdy Buckthorns, fruiting Blackthorns, budding Dogwood and Privet, and the rest, as it was in Celtic days, when, perchance, the British Chief whose remains were interred in the Cinerary Urn, already referred to, roamed about here in centuries long since gone by. Perchance, he tended his herds on the very spot upon which this house of "Verulam" now stands.

When King Offa gave the adjacent old-world village of Norton (now part of Letchworth) to the Monks of St Albans some time prior to A.D. 793, the whole of the district now known as Letchworth Garden City was scrub, but, as Norton Common, which I see from my window, is the catchpit between two ridges of rising ground, it was apparently deemed unworthy of draining for



cultivation purposes. That attempts were made at drainage, grass-strewn hill and furrow tracks, still in evidence on Norton Common, tend to prove, but this untilled area remained, and to its unsuitability for cultivation we owe this unique relic of a bygone age.

Wandering daily upon this fine open stretch of eighty acres, only a stone's throw from the writing-table, my thoughts are often far away in the misty past. As I traverse parts of the grassy Icknield Way to-day, I am also carried back to the long ago, when men of the Stone Age fashioned their flints for war or chase, when swarthy Britons drove their herds along it, and later, when Roman chariots swept by.

"Give me," says Hazlitt, "the clear blue sky over my head, and the green turf beneath my feet, a winding road before me, and a three hours' march to dinner—and then to thinking!" If Hazlitt traversed some of the winding stretches of the Icknield Way, as did poor Edward Thomas of never-to-be-forgotten memory, now lying "Somewhere in France," he must have practised the noble art of thinking very often, at least, that is my own experience, as I sit in the quietude of my study this evening, amidst these old-time associations.

The Icknield Way is one of the most famous of our ancient British roads, and may have been originally an Ox drove. An old Charter is said to exist which refers to it as "the Way the Cattle go," and Thomas says that one writer has gone one better, and boldly derived the name from the British Yken, or Ychen, meaning Oxen.

I must not dilate at greater length upon this fascinating roadway, or I shall be accused, and rightly so, of undue transgression, but I mention these surroundings of my country study as showing how, to one keenly sensitive of the mysterious influence of bygone days, such an environment may help to mould one's character, and build up one's ultimate career. To me it is a privilege to have residence upon this old roadway, and to daily peregrinate its winding tracks over hill and dale, where the wild birds sing, and the wild flowers revel in the chalk strata, where the footprints of antiquity may be discovered at almost every step.

Upon my desk I invariably have before me for mental consumption a weekly calendar of Thoughts. To-day it is from a woman's rosary I am able to sustain myself. Lilian Whiting is the author, and in "The World Beautiful" she writes:—

"A little margin for the stillness and leisure of growth—the

time to think—is the only corrective for the rush and stress of practical life.”

As I enter the study, these weekly excerpts serve as my daily supplication all through the year. May they never grow less !

Visitors to my hermitage, who are of a literary, or thinking, turn of mind (and they mostly come under one, or both, of these heads), remark upon the comprehensiveness of my little Library, and, as I myself scan my shelves, I sometimes think, when surrounded by so many treasured tomes on the entrancing subject of Natural Science, of those boyhood days about which I have already written at some length in my opening chapter. Then I had no books to consult, none to aid, elucidate, or inspire ; now the great difficulty is to pay due regard to the many authors represented in the collection.

This chapter must not savour too much of a Bookseller's or Publisher's catalogue, but there are a few works to which I must refer, so as to justify the title selected at the head of this section.

To the late F. Edward Hulme's "Familiar Wild Flowers" I owe a debt of gratitude I can never hope to repay, except as a faithful disciple of the wildlings about which he wrote so charmingly, and so faithfully pictured. John's "Flowers of the Field," Hayward's "Botanists' Pocket Book," and "Illustrations of the British Flora," drawn by W. H. Fitch and W. G. Smith, have also proved of invaluable assistance in my Botanical studies, whilst, when requiring (as one so often does) to know something of the "secret of a weed's plain heart," I search for stimulus among the precious pages of Hugh Macmillan's "The Poetry of Plants," and am never disappointed.

Read Macmillan on the beautiful symbol of self-sacrifice, evidenced by the formation of a flower, brimful of scientific fact imparted in the most delightful and suggestive poetic vein, and be exceeding glad that, as Macmillan says, "Science has anointed our blind eyes with its own magic eye-salve, and enabled us indeed to see men as trees walking. We see our own human nature reflected in the nature of the flowers of the field in a previously unknown way. We see the analogue of the mother's bosom in the milky substance of the two cotyledons of the seed for the primary nourishing of the young embryo which they contain. We see the lover's joy in the Spring blossoming of the flowers, and the loveliness with which Nature adorns her bridal bower. . . . It is not perfect creation, complete at once, that we see, but God sowing seeds, making things to grow by



outside circumstances and living forces within; slow, gradual evolution from the nebula to the full-orbed star, and from the chaotic star to the skilfully ordered and richly-furnished earth, fit to be man's dwelling-place, and the scene of probation for immortal souls."

I turn, as often as I can, to the inspiring pages of Coulson Kernahan's "Dreams, Dead Earnest and Half Jest." Kernahan, as a young man, was a friend of my family, and we used to welcome him at the old home at St Albans many years ago. I have read and re-read his "I Believe" in the "Wildflower and the Dawn," and "A Dog in the Pulpit," and I am like a giant refreshed. Light reading and deep thinking, such as Kernahan has given us, are alike stimulating, but one quotation from "I Believe" must suffice. Says Kernahan:—

"The Great Secret, the Secret of Life and Death, of Birth and the Beyond, of Man's Destiny and God's Being, is still to seek—my boyish star-searching notwithstanding—but now when I am no longer a boy, I never seem so near the hiding place of the secret as when I look into the heart of a flower."

My old friend Aflalo's "Sketch of the Natural History (Vertebrates) of the British Islands" has for several years been an honoured and altogether useful volume on my shelves, and the charming works of W. S. Furneaux, "The Outdoor World," "Life in Ponds and Streams," "The Seashore," and "Field and Woodland Plants" have all proved of inestimable service.

W. H. Hudson's "British Birds," Gerald Leighton's "British Serpents" and "British Lizards"; poor Edward Connold's "British Vegetable Galls," and E. W. Swanton's "British Plant Galls" and "Fungi"; Ray Lankester's "Extinct Animals" and "Science from an Easy Chair"; Foster-Melliar's "Book of the Rose"; Lydekker's sumptuous tomes in "The Royal Natural History"; the Hertfordshire volumes in "The Victoria History of the Counties of England"; Daydon Jackson's "A Glossary of Botanic Terms"; Kirby's "Butterflies and Moths of Europe"; Avebury's "British Flowering Plants" (a treasured presentation volume); Hæckel's "Evolution of Man"; Darwin's "Variation of Animals and Plants"; Warde Fowler's "A Year with the Birds" and "Summer Studies of Birds and Books"; Carpenter's "Insects, Their Structure and Life"; Maunders's "The Heavens and Their Story"; Pemberton Lloyd's "The Months of the Year"; Thomson's "The Biology of the Seasons" and "Introduction to Science"; Emerson's Complete Works;

Ball's "The Earth's Beginning"; Cundall's "Every Day Book of Natural History"; Buckland's "Curiosities of Natural History"; Bateman's "Fresh Water Aquaria"; Scharff's "History of the European Fauna"; Paterson's "Notes of an East Coast Naturalist," "Nature in Eastern Norfolk," and "Man and Nature on Tidal Waters"; Peckham's "Wasps, Social and Solitary"; Geikie's and Lyell's "Geology"; Shakspeare; Fabre's "Life and Love of the Insect"; Darwin's "Descent of Man" and "Origin of Species"; Step's "Wayside and Woodland Blossoms"; South's "Butterflies and Moths of the British Isles"; Baikie's "Peeps at the Heavens"; Hooker's "Students' Flora of the British Islands"; Mrs Gatty's "Parables from Nature"; quaint old Culpeper's "British Herbal"; Rimmer's "Land and Freshwater Shells of the British Isles"; Synge's "Story of the World"; Pryor's "Flora of Hertfordshire"; Sutton Palmer's "Bonnie Scotland," and, of course, a choice selection of the Poets, all these find an honoured place in my little library for reference and inspiration.

There are, too, a number of presentation volumes from living authors, and others who have passed hence. Of these I do not feel disposed to write, nor even to mention by name, as the cherished inscriptions upon the fly-leaves bear the imprint of friendships which have become cemented as the years rolled by, never, let us hope, to be broken, until the final chapter comes to be written.

There are other rows of books upon my shelves which modesty forbids me to mention, and of which this present volume now forms a part. I can only interpolate here that my literary work has afforded me considerable pleasure, and, as Arthur Paterson would facetiously remark, "a good deal of scribbling." I have never awakened one morning, as the usual story goes, to suddenly find myself famous, or, for that matter, infamous, but that my books have been received with favour is testified by the several editions through which they have passed, and the many volumes of press cuttings, letters from unknown correspondents and well-known persons, which for a long time I have collected and preserved in chronological order. These scrap-books are of themselves an adequate index to my life, as they also contain printed copies of most of my literary contributions during the last twenty-eight years, with records of my lectures, doughty deeds upon the cricket field, and other things incidental to my life as a Naturalist, and lover of outdoor pursuits.



My only "collection" in the study is a complete set of the eggs of British nesting birds. I am not, and never will be, a clutch collector, more scientifically accurate and valuable though it may be. One egg of each species is all I possess, and these are mounted on grey-toned cards, and afford a great amount of pleasure to my visitors, especially the juvenile section of the community, representatives of which gloated with delight at a sight of an egg of the Golden Eagle, Osprey, and other rarities this May morning. Eggs mounted in this way are extremely useful for classes, photographing, and other purposes, and have the additional advantage of taking up very little room. This is an important item to remember in a small country study such as I possess.

Above my desk there is displayed in coloured silks a beautiful spray of Wild Roses and Forget-me-nots, the loving handwork of my saintly grandmother, whose love of Nature amounted almost to a passion. This last token was completed just before she died. It serves to remind me day by day of what I myself owe to inherited tendency, and may fittingly conclude this, the sixteenth chapter, of my "Life," in the failing light of a May evening, when spirited Thrushes are chanting a parting lullaby, bidding all creatures to slumber at the close of day.

## CHAPTER XVII

### WITH ROD AND LINE

MANY, both great and small, are the fishes I have caught with rod and line, and, although I angle no more, having long since given up the "gentle art" as Walton would say, a place must assuredly be found for a few of my fishing experiences in this volume.

As indicated in the opening chapter, "How I Became a Naturalist," angling had for me, as a small boy, youth, and young man, an indefinable charm. It took me into the open air, it enabled me to study at close quarters many aquatic creatures, and, even if my creel was often empty, I was able to spend long days by the water's side, which helped to cement more firmly the inherent love I possessed for Wild Nature.

I remember how expectantly we used to look forward to those fishing expeditions, always in private waters, and how, on the night previous to the excursion, great preparations were made, getting rods, tackle, food, and bait together. On many a stormy night I have been out of doors searching for Earthworms upon the grass plot, vainly endeavouring to rescue a fat lobworm from its subterranean dwelling-place, and, at the same time, to keep the candle from blowing out. We rarely commandeered any other bait except worms, and nearly always secured a supply under the cover of darkness, when these useful mould-makers steal above ground for the purpose of obtaining food, so as to deposit their casts, and perpetuate their race.

My earliest recollection of being by the water's edge watching a float goes back some thirty-six years, when my family (great fishers all!) used to regularly visit the fine expanse of the River Lea in Brompton Park, the seat of Lord Mountstephen. In those days the present owner of the estate was in Canada, making railways and fortune with Lord Strathcona, and the Earl Cowper was, I believe, then in residence. Brompton Hall acquires its name from Sir John Brompton, who died in 1599, and whose tomb is in Hatfield church. Lord Palmerston resided at the former, and died there in 1865. It was a wonderful place in which to



angle, the river then teeming with large fish as it does now. Our catches were phenomenal, and the chief difficulty was as to how best to carry the fish home. Perch, Rudd, Tench, Roach, Pike, Carp, and other coarse fish fell to our rods in large quantities. I must have been very young when we angled at Bocket Hall, because I distinctly remember on my first expedition seeing in the river there what I, in my childish imagination, believed to be a small Crocodile basking near the surface. It sent a kind of terror through my boyish frame, and I fled from the water's edge in great distress. I now know, of course, that Crocodiles (either small or big) do not inhabit the River Lea, and the object accountable for my perturbed state of mind was a small Jack sunning his dappled body in the motionless way these fish are wont to do.

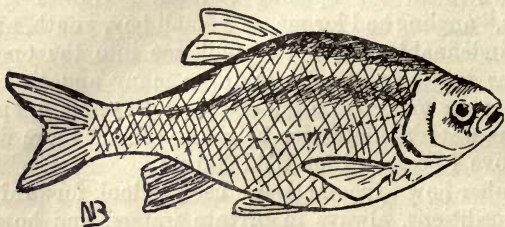


FIG. 91.—RUDD.

I remember, too, the Grey Wagtail, which always haunted the waterfall on the right of the fine stone bridge where the water leaves the park to form the broadwater at historic Hatfield, where I have also angled.

The keeper at Bocket Hall used to be a very accommodating person in those days of long ago, for he always invited us to put the written permit into our pockets again, as it would serve another time!

I was, like my father and grandfather, a bottom angler (the Cuckoo is calling so persistently as I write that I find it difficult to concentrate my thoughts upon bygone fishing days!), and although I am aware that, to those who pursue the more noble art of fly-fishing, the former is regarded as a discreditable pastime, as such I have caught a variety of fishes, and angled in deep ditches, small ponds, and other situations where it would be difficult for a fly fisherman to successfully make a cast.

Lake fishing was always a strong favourite with me, especially if the water was fringed with aquatic herbage, and there were cool recesses between the lily leaves where I could discover a likely hole. Back waters of rivers, such as the sluggish Colne

near Watford, were also frequent retreats which lured me, and there I have caught (but not with much favour) wriggling Eels in plenty. On one occasion towards the close of my fishing career, I landed a male and female Eel within five minutes of one another. Both fish measured exactly three feet in length, and were the thickness of my wrist.

Happy days were those that I spent by the Colne at Bricket Wood. There was keen competition among the party for possession of a favourite Roach swim and a well-known Perch hole. There were Crayfish there, too. This latter is, of course, a crustacean, and I used to wade into the shallow parts of the stream, and catch with my hands a number of these fresh-water Lobsters. Large Chub haunted a deep channel under overhanging trees, but I cannot remember that we ever succeeded in landing one of these wary monsters.

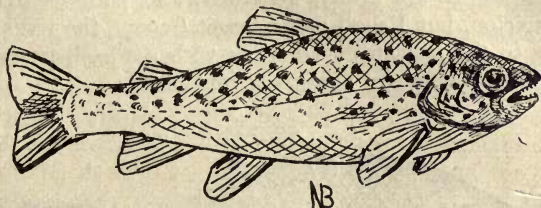


FIG. 92.—TROUT.

Just before the River Colne joins the Ver, the latter pleasant stream meanders rapidly over a gravelly bed, and it was there our lobworm sometimes meant a deadly bait for a lazy Trout. This reminds me that the greatest day I ever experienced with this sporting fish was somewhere in the same vicinity. One memorable day ten brace of Trout fell to my own rod from a shallow stream which emerged from the lake in a fine old-timbered park. Each fish averaged over two pounds in weight, and, in addition, a number of coarse fish were also included in the day's bag.

It may not have been true sport, but a very happy fisherman left the river-side at nightfall, when the heavy mist proclaimed the close of day, and quivering Bats heralded the approach of night. I have seen Pike caught in the lake I have in mind up to twenty pounds, but the largest catch of this fish of which I have a record fell to three rods in Leicestershire on January 30th, 1903, when twenty-six fish, weighing 236 pounds, were secured. The largest Pike that has passed through my hands weighed



twenty-six pounds, and the two largest Brown Trout eight pounds, and seven and three-quarters. These three fish are now in Letchworth museum.

When the late Madame de Falbe resided at Luton Hoo, fishing in the lake formed there by the River Lea was strictly preserved, but, on the late Sir Julius Wernher coming into possession of the estate, I was, with my father, one of the first to fish there. I have no definite record of the number, or weight, of the fish we caught, but I remember that, in addition to a number of Pike (one of thirteen pounds, a finely-marked specimen, is now preserved in Letchworth museum), and large Perch up to four pounds, in one swim, just over the rushes close to the shore, my father caught fifty-nine large Roach and Rudd, and sixty fell to my own rod. We fished within half a dozen paces of one another, and, perhaps, that was the greatest day's angling I ever had.

Fishing stories are always regarded, and perhaps rightly so, with suspicion, but I shall never forget Groom, the river keeper, trudging to the station ahead of us with a wheelbarrow full of fish, perhaps a couple of hundredweight in all !

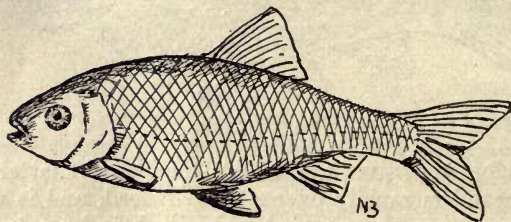


FIG. 93.—ROACH.

We had another memorable day at the Hoo later on, and secured a big haul, but, when the lake was cleared of its coarse fish, and Trout were introduced, our fishing days there came to an end.

I have caught Rudd up to four and five pounds in weight, fishing without a float, and baiting with dry bread. I shall never forget the beautiful bronze sheen upon the broad flat sides of this handsome fish as it was brought to land, nor the large Roach (up to two pounds) which fell to my rod in other favourable retreats.

Kingfishers have dashed down stream and hovered over my large jackfloat, mistaking the white upper part for a silvery fish at the surface ; Swallows and Dragonflies have perched upon my rod, and, on one excursion when fishing at the pondyards,

near St Albans, a large Pike darted at my float, evidently misjudging it for something far more appetising than a ball of painted cork. These pondyards were, it is interesting to note, made by Sir Francis Bacon, after he became Lord Chancellor in 1618, when he built a third house close by, called Verulam House. Nothing remains of this third house except a portion of the servants' quarters. The present mansion of Gorhambury is the fourth house built on the estate.

I have caught fine fish in the old fish-pool of the monastery at St Albans, and the historical associations of the spot made such an excursion as memorable as the finny tribe which I lured to their doom.

Those patient hours by the water's side among birds, beasts, insects, and flowers were not ill-spent, even if fish were few. They were not idle hours. Some fresh sight, or sound, was always to be recorded, and enforced patience in those angling days served as a capital apprenticeship for more observant and bloodless vigils in the years to follow.

I have fished on a broiling hot day in July (shall I ever forget Diamond Jubilee Day, 1897 ?), when lo ! I have toiled all day and caught nothing, and I have set out on an expedition when it was raining in torrents, and it has never ceased the whole day through. I have angled in fair weather and foul, and have always gone forth with a strong will, and a light heart, at the prospect of another full day in the heart of rural England.

I have many a time been by the water's edge long before the overnight dew had left the lush meadows, and the water was gin-bright at the rising of the sun. A scorching hot day followed, and sport was poor. I have arrived at a favourite fishing ground when a heavy thunderstorm has suddenly rent the heavens. Torrential rain has poured down, and, in the course of an hour, I have watched the river rising until it overflowed its banks, and the low-lying ground was flooded for several acres. Fishing under such conditions is out of the question, and I remember we used to sit on a certain eminence and watch the haycocks floating down stream, and the Water Voles, which, driven from their tunnels in the banks, had to swim to land for safety. It was an attractive sight to watch these delightful little mammals coming towards the hedgerow, bordering the hill upon which we were seated, and compensated at least one juvenile member of the party for the lack of opportunity of going a-fishing.

I have caught Dace up to one pound in weight, and this may be



considered a really good fish, but there is a specimen in Letchworth museum, caught in the River Ivel, near Baldock, which turned the scale at one pound eight ounces, which is surely almost a record for this small species.

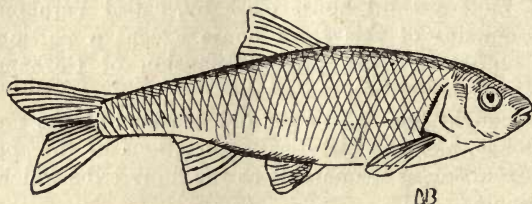


FIG. 94.—DACE.

On the Norfolk broads we used, when I was a boy, to catch boat-loads of fat Bream and small Eels, but it was poor sport, and I could never understand why, at the end of the day, all the fish were thrown away. The Bream is not of sportive disposition. It is a tender-mouthed fish, and, when it secures the bait, it rises, and thus releases one's float, until the latter falls over flat on the water. Then is the time to strike.

It was on the broads I first made acquaintance with the Great Crested Grebe and Bearded Tit, and, although I have returned in later years to *watch* both birds and fish, rather than to catch them, it is up to me to admit that, had it not been for my experiences with rod and line, I should not have had an opportunity of being introduced to these two rare British birds so early in life. When other fish failed me, I used to seek out the social Gudgeon, which, of all fresh-water fishes, seems to prefer the bed of a fast-running stream, especially where there is a gravelly bottom.



FIG. 95.—GUDGEON.

But the Gudgeon is a very fastidious creature in regard to its diet, and, if the fish are not on the feed, it is almost impossible to get them to partake of the tempting morsel that is offered.

Sometimes, in sheer despair, one of the little company will snatch at the bait more in anger than otherwise.

This is a bony little fish, and affords a certain amount of sport for one so small, as also does the banded Minnow, which is so voracious that, lighting upon a shoal, one is able to catch them one after the other in quick succession. I baited with caddis and blow-fly larvæ in those unregenerate days, and found Minnows greedily took them, and were thus lured to their doom.

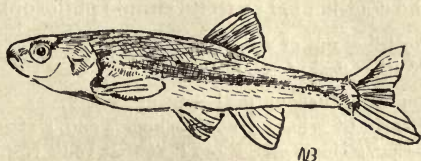


FIG. 96.—MINNOW.

Happy as were the days which I spent for many years with rod and line, I must now make an open confession to the reader. I have no desire to fish any longer, and have faithfully adhered to a decision I reached some years ago. I love now to *watch* rather than *catch* these tenants of our fresh waters, and to learn something of their life histories. I may be hypersensitive, but I cannot nowadays take any part in destroying wild life, either animal or plant, and hold that everything has a right to occupy its place in the economy of Nature. I cannot definitely decide whether fishing is correctly described as a cruel sport, but I do unhesitatingly regard it, in these later years, as a distasteful one, and such as no true lover of Nature can participate in. Although I owe part of my education as a field naturalist to my days with rod and line, I often wish during my maturer years that I had taken no part in such expeditions as I have drawn attention to in this chapter.

I make a clean breast of it, and confess I am a keen humanitarian, a lover and keeper of peace, a reveller in quiet country pursuits and pleasures, an admirer of books, and men, and things.

In "De Profundis," Robert, Lord Lytton, has given us a fish fable in song. It purports to be an agitated conversation between a tiny Tench (what fat "doctors" I have caught at Aldenham Abbey and Sopwell in days gone by!) and an old fat Carp. The tiny Tench was dissatisfied with its lot, and wanted wings, so that it could soar and hover in sweet air, and thus be freed from its stagnant element. The old fat Carp, being more experienced,



offered the gurgling Tench some sound advice, telling the little fish to make itself contented, to swim as it had fins, and that "wishes are ways to pain."

" 'Nay,' sigh'd the Tench, 'doth the Almighty Whale  
Plague us with wishes, only to deny 'em ?  
Oh ! but for wings !'—' Stuff worms and stop thy wail,'  
The Carp said, ' *Carpe diem !* ' "

But, in spite of this entreaty, the tiny Tench continued its wailings and the cool-bellied Carp its simple philosophy, saying :

" ' For fishes out of water, what are they ?  
Neither flesh, fowl, nor fish !  
They from their natural element ascend,  
Drawn by a hook : at that hook's end, a string :  
At that string's end, a rod : at that rod's end,  
Death. And the quivering  
Thou takest for the thrill of inspiration,  
Is but the agony of idiots hook'd,  
The victims of their own imagination,  
Fisht for, and caught,—then cook'd.' "

Thus the story continues, the sage counsel of the Carp being for the tiny Tench to make itself content, to keep at the bottom of the pond, and to beware of the crafty Pike. The end comes when both small Tench, and plump Carp, find themselves in the same dish which was to feed the fatted prior ; thus sage, or simple, fish come at last to the frying-pan.



FIG. 97.—MUTE SWAN AND CYGNETS.

## CHAPTER XVIII

### MY DOG, AND ANOTHER

WHEN Peter first arrived, he travelled by train in a small wooden box about the same size as one of the wretched little prison-cages one sometimes sees hung outside a cottage containing a captive bird. On opening the box at the station, just a small black downy ball standing on four legs, with beady black eyes, stepped out, glad that the journey by rail was at an end. We at once fell in love with this little pet Pomeranian dog, and, as I write, he is curled up on the study table with his foxy head as close to the writing-pad as he dares to venture. Peter is never happy unless he is in the study with me, and it is appropriate that he should be in close proximity to my manuscript paper when his little life-story is being written. If the door is closed, he pats it with his small paws, and thus asks to be admitted. He shows every evidence of knowing my exact whereabouts.

Since he arrived as a little mite a few months old, Peter has altered considerably. He was born at St Albans as a toy Pom. We first saw him being exercised along the Roman Causeway, near the site of Verulam (see Chapter II.), and, if we had followed the directions given to us as to his diet, he would doubtless have remained a toy dog until now. The amount of food prescribed per diem was, however, so limited that the mere sake of keeping the little fellow of small proportions did not appeal to me. We, therefore, increased his food supply as we thought fit, and he waxed exceedingly.

Peter has a noble pedigree which would, if set out, fill the whole of this printed page. It is hidden away in a disused archive, for, if the truth be told, pedigrees of animals kept as pets do not appeal to me so much as a constant companion, such as a frolicsome little dog whose friendship is one of the most delightful things in existence. (As I write these words Peter looks up at me, and places his foxy head half-way over the writing-pad, as if to emphasise his immense interest in what is happening as my fountain pen glides smoothly over the paper !)



The old saying, "Train up a child in the way it should go," applies equally well to a dog. From the first, Peter has been scrupulously clean and well-behaved (his left paw has just come perilously near the wet ink), and I quite believe the dog responds by good manners and immense faithfulness as his only means of demonstrating the care which is bestowed upon him. Here is



FIG. 98.—MY DOG, PETER.

Peter, a striking likeness, showing him in a very characteristic attitude.

My dog is a great personality in the household. He insists (and usually succeeds) in knowing exactly what is taking place in the daily routine, and seems acquainted with all the movements of the persons with whom he is brought into contact. He has accompanied me on many of my travels. He has been to Ben Nevis, and to the summit of Snowdon.

Although every day may be alike to him, he appears to enjoy each moment of his existence, and, except when overtired after return-

ing home from an extended outdoor excursion, the wee mite (for there isn't very much of him even now) is always good-tempered. (The left foot is half-way across the written sheet now, and the dog looks in a philosophic mood! He is lying lengthwise right along my writing-pad, and refuses to budge. Having just come in from an outing, I am loth to disturb him!)

He accompanies me every morning and night on my saunters round Norton Common, and, like myself, must know almost every bush, tree, and pathway. He always runs sideways, with nose to ground, and, as he is given to following "trails," we attach a bell to his collar so as to be able to follow his exact whereabouts in the undergrowth. Although not a poacher, he invariably chases birds away from the shallow pan of water put out in the garden, and one day he came trotting down the lawn

bearing a Rabbit almost as big as himself ! (Peter's right paw has contrived to advance perilously close to my manuscript sheet, and a wet nose is pressing at my elbow. I am now writing at an acute angle, but Peter remains unperturbed !)

Like most dogs, Peter has his favourite resting-places. When I enter the house after a lengthy, or temporary, absence, his first place of refuge is my lap, upon which he at once springs and curls himself up like a Dormouse entering its Winter sleep. At other times he makes himself comfortable upon a mat on the upstairs landing, where he can survey all that goes on above and below, or, in Winter, he lays full stretch on the mat before the fire. As it is as black as himself, it is sometimes difficult to find him ! At night he retires into a wicker basket, and is carried upstairs, and placed on a chair by the bedside. Nine times out of ten, however, he steals cautiously from his basket during the midnight watch, and makes himself comfortable at the foot of the bed. (Peter has now placed the whole of his body over my manuscript, and I had to write this note *after* he had removed !)

We give him one good meal at midday, and half a dozen small puppy biscuits for supper. He is a mark on ginger biscuits (for which he waltzes round very prettily on his hind legs to the delight of children), chocolate, pieces of apple, and tea. He refuses to eat shop cake or pastry, and is evidently as old-fashioned in this respect as his master ! (I am turned right off the large writing-pad now, and am working as best I can at the very edge of the table ! Peter snorts ! He is very tired to-night.)

Peter is a capital little house dog (I am back at the centre of the writing-table again now), and barks persistently when the front gate is opened, or shut. Some of the itinerant vendors who visit us have been heard to remark that "the little 'uns are very often worse than the big 'uns." If making a noise is anything to go by, I agree.

This faithful little dog of mine then, so gentle and affectionate, withal so sensitive, is part and parcel of my own existence. It may appear childish to make such an open confession, but it is so. His pretty little ways, as he greets one with prancing front paws, his cleanly habits, companionship, and response to coaxing, endear him to us all. I am willing to confess that tears were shed when we mourned the loss of a Persian kitten (Peter has just risen, and walked right across my sheet of wet manuscript, smudging it *en route* !), but as to what would happen if little Peter was taken from us I do not care to predict.



He is a mark on flies, moths, and humble bees, but, since a wasp's barbed dart became embedded in his sensitive nose a year or two ago, he has not meddled with that insect again.

But pedigree dogs are not the only ones that make companionable hounds, and many a poor, half-starved mongrel may be trained as an affectionate pet. Such a dog is Jummie, whose portrait is here seen.



FIG. 99.—JUMMIE.

Jummie sat for his picture until word was given that the trying ordeal was over (Peter has just growled at a passer-by), and to see this clever mongrel attired in an old hat, collar and tie, wearing spectacles, and holding a pipe, is an apt example of what kind training, and good nourishment, is capable of accomplishing. Jummie lives on terms of great friendship with a sagacious Jackdaw and a tabby cat, and he is the second dog I had in mind when I decided to devote this short chapter to my own little pet, and—another.

## CHAPTER XIX

### YOUNG NATURALISTS IN THE MAKING

NATURE Study, as I have already indicated in Chapter III., now finds an honoured place in every school in the land, and experience teaches me it is one of the most eagerly anticipated lessons in the school curriculum. Occasionally—and especially among senior girls—one finds a certain indifference on the part of a small proportion of one's pupils, but, among the hundred or so under my own personal charge, I could count on the fingers of one hand those who regard the study of Nature as a subject only fit for the kindergarten, and as of little, if any, interest to them.

It is a privilege of which I am duly sensible to have a share in encouraging a love of Nature among these lads and lasses, and I fully realise that, as they grow up to be men and women, they will keenly appreciate the opportunities which were presented for outdoor studies during their school careers.

It is pleasant, and indeed important, to recognise that these young naturalists in the making will, in after-life, reap material benefit from their juvenile experiences, for those of us who have grown up under such benign influence can faithfully testify as to the immense advantage of such an important factor in one's early education.

When I enter the class-room in Winter, or take the children out of doors in Spring and Summer, expectancy always runs high, and although at times my young charges are in such jubilant spirits that it is with difficulty one is able to obtain the concentration necessary for serious work, an appeal to their finer senses, and code of honour, has a magnetic effect.

"What is the lesson to-day, Sir?" or "Where are we going to-day, Sir?" greets me from a hundred lusty throats as soon as I am within earshot, each week of my life. There is very little grumbling, an absence of shirking, and a co-operative interest which makes the teaching of such a subject as that under review a living revelation, and constant joy.



Pockets are emptied of curious-shaped flints (mostly curious shaped and that is all!), coins, birds' skulls, sharks' teeth, pieces of pottery, and other paraphernalia, and, even after school hours, my house is a sort of receiving station for the flotsam and jetsam of country objects whose identity the children are anxious should be determined. I endeavour at all times to encourage these young people to regard me as guide, philosopher, and friend, and to so point the way as to let them realise the great joy which the study of living things, as well as the mighty past, have brought into my own life.

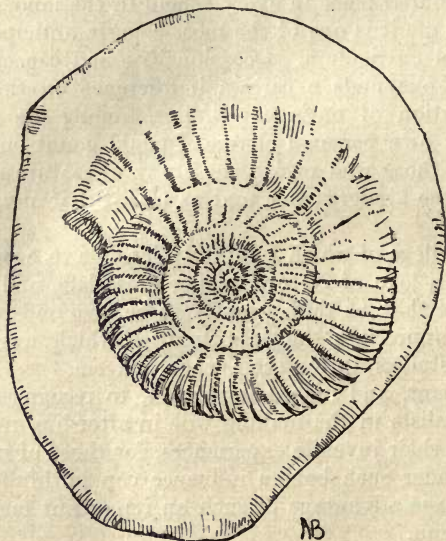


FIG. 100.—FOSSIL AMMONITE.

A rudely-worked flint implement, a sprig of larch fir, a dead flycatcher, a puss moth, an ammonite, a boar's tooth, a fragment of a belemnite or fossil oyster, such are a few of the objects before me on the study table as I write, recently brought into me for identification by these young naturalists in the making.

A country walk is to them a scientific exhibition, full of interest and wonder. Their keen young eyes detect things which older folk pass heedlessly by. Objects which escape the notice of a trained eye, even after a lifetime of devotion, are discovered

on every expedition we take together, and hardly a day passes when some new secret is not unravelled.

A fund of humour often creeps\* unconsciously into Nature lessons in class, and I had an apt example of this recently when I was telling the pupils of Raphael's picture of "The miraculous draught of Fishes." I was pointing out that the great Italian painter made two grievous errors in his picture, for he painted his Lobsters red, and there are no Lobsters in the Sea of Galilee! But the point of my story is that, on asking the boys: "Now, who was Raphael?" one young hopeful replied without a moment's hesitation: "Please, Sir, he used to play for Surrey!"

The children use note and sketch books, and, when the weather is unpropitious, they visit the local museum, where they find objects of natural and human history displayed *connected with the past and present life of their own neighbourhood*. I have been much impressed with the importance of this fact in regard to the boys and girls who are my own pupils. A regional museum enables them to concentrate their attention in a way that cart-loads of curios would not do. A museum deserving of support should be a storehouse of regional objects, not a miscellaneous assortment of Egyptian mummies and shattered aeroplanes, a sort of Bagdad bazaar. Rather it should be the aim of a local museum to set out in natural sequence the Geological, Archæological, Periodical, Zoological, and Botanical features of the neighbourhood in which it is situated, and should be made so attractive as to *invite* inspection, rather than to present the appearance of a deadhouse, or mortuary, as so many provincial museums unfortunately do.

Having a local museum close at hand, which school children can visit, either in class, or individually, affords them a living interest in it, and although the one with which I am myself intimately associated has only been in existence a matter of three years, our museum at Letchworth already contains a number of objects collected by the children themselves, and in which they take especial pride.

Perhaps the bird collection makes the strongest appeal to both girls and boys, but girls in particular. They are encouraged to sketch these in black and white, or coloured chalks, during the course of an hour's visit, and to make original notes regarding same. This head and hand work impresses the form, colour, and general appearance of a bird upon them, and I have been surprised many times when a young child has accurately identi-



fied a bird out-of-doors. Upon asking for information on the point, I have, in reply to my query, received the immediate response : " Please, Sir, I sketched it at the museum ! "

Next to the birds, prehistoric and Roman remains prove of unfailing interest, especially if accompanied (as they always should be) with maps, pictures, diagrams, and any other matter that is likely to make the object exhibited of real interest, and easy understanding.

When out-of-doors, detailed notes are made of both animal and plant life, always bearing in mind the nature of the environment which is being explored, and now we have commenced to go one better, and have instituted a little regional survey work, about which I have written in the succeeding chapter.

These young people do not forget their powers of observation even when engaged upon the cricket, football, or hockey field, and I have heard a centre forward, as he dashed up the field of play with the ball at his toe, suddenly exclaim : " Please, Sir, what bird is that flying over," and, to-day, as we played cricket, and a bird suddenly burst into song in an adjoining meadow, one of the keenest young cricketers at the school stopped short, as he made his way to the crease, and dramatically remarked : " Hark ! hark ! the Lark ! "

Although, owing to force of circumstances, these school classes have to more or less visit the same Nature retreats year after year, I find that, with few exceptions, the children rarely tire of the old haunt, and, in several instances, their memorising puts older people to shame.

My work for many years past has brought me into close touch with young people. Most of my books have been written specially for them, and, as a result, my post-bag often brings me communications from distant parts of the Empire.

My kinema and other lectures have also introduced me to a large number of boys and girls who do not come under my direct influence in the schools that I visit, and, as evidence of this, it may here be stated that, at a course of twenty-two kinema lectures given by me at the Letchworth Picture Palace last Winter, there was an attendance of ten thousand people, most of whom were children who came regularly each Saturday afternoon. I have given several courses of these lectures at Letchworth and elsewhere, and have sometimes adopted the plan of offering book prizes for the best illustrated essays sent in. The result in this direction has been most encouraging, and in several

instances truly remarkable, as the sketches had to be drawn, and notes made, from memory, the pictures, of course, being shown in the dark, moving quickly across the screen.

In April 1909 I founded, in response to entreaties from various parts of the world, the Young Naturalists' League, which now has a membership of nearly ten thousand boys and girls. The idea of founding the league occurred to me by reason of the large number of letters I was continually receiving from unknown correspondents who had read my books. They often asked questions, and suggested that means should be at their disposal for the interchange of ideas, exchange of specimens and notes, and pleading for a co-operative association which should link them together. The members selected their own league motto :—

“ One touch of Nature makes the whole world kin,”

and the interest created has exceeded my most sanguine expectations.

The young people for whom it was primarily originated have become thoroughly enthused, and Nature study lessons, both in and out of school, have, I am told, been attended to with greater intelligence. Increased interest and observation have been aroused. This augurs well *for the teacher*, because the child is, as a result, keener in perception, its powers of intelligence and other traits are awakened, stimulated, and fostered, and the result must, of necessity, be eminently satisfactory from many points of view.

Several tributes have been sent in from schoolmasters and others as to the interest evinced by scholars since the league was started, and one enthusiastic head teacher writes :—

“ The league has been the means of interesting our boys in the study of Nature to an extent almost incredible, and the good it is doing, and, I hope, will continue to do, is inestimable.”

A few simple rules were adopted which each member pledges himself, or herself, to loyally keep, thus :—

- I. To take an intelligent and observant interest in Natural History.
- II. To protect and preserve animals and plants, and not to pluck or uproot the last-named indiscriminately.
- III. To be kind and considerate towards both wild and domestic animals, and to cause no creature needless pain.
- IV. To attend studiously to lessons at school, and especially to help the teacher when Nature Study is being taught.
- V. To keep a Nature notebook, or diary, in which to record, when possible, such notes as are of interest.



- VI. To interest others in studying wild animals and plants, and to endeavour to learn of their uses and value.
- VII. To treat pets kept in captivity humanely, and to look after their comfort in every way.
- VIII. To endeavour to obtain new members of the league.
- IX. To read wholesome books, and send in any interesting notes, or queries, that come under notice.
- X. To help make the league known, and to faithfully carry out the rules above set out.

Many branches of the league have been formed as far apart as Accra (Gold Coast) and Aberdare ; Nottingham and Ceylon ; West Ham and Malta ; Derby and Egypt ; Crewe and Toronto ; and in this way members are brought into personal touch with one another, so that their varied studies have a collective interest. Thus, with my own Nature classes, this large family of league members, and some thousands of readers of my popular books in school and at home, I experience a real joy in having had the opportunity afforded of encouraging, and assisting, the rising generation to take an intelligent interest in the things around them. Moreover, in view of the information I have here imparted, of which the reader may not have been cognisant, I feel amply justified in my choice of title of this, the nineteenth, chapter of my "Life."

## CHAPTER XX

### THE NEW DOMESDAY

THE varied experiences which I have chronicled in this volume have, as a natural course, brought me into close association with many places, men, and things. As I have tried to set out in the different departments into which this sketch of my "Life as a Naturalist" is divided, I have been linked up the whole of my career with both natural and human history, and, although I have for many years kept a faithful diary record as a permanent reference of my own personal observations, it has of late become manifest to me that a splendid co-operative work is awaiting all those knowledge-seekers who are willing to assist in what is now called regional survey, or, in other words, the New Domesday. If this idea is co-operatively adopted, individual effort will, in course of time, become of both local and national importance and usefulness, and the humblest investigator may take part in thus rendering service to the State through even the eyegate of his, or her, own parish.

Since saintly Osmund undertook the Domesday Book in 1085-7, which was the record of a statistical survey of England, a great volume of water has flowed under the bridge, and, although county and local histories have been, and are still being, published, the time has arrived when local Natural History, Scientific, and other kindred Societies should institute a complete survey of their own respective districts, under the general superintendence and encouragement of a duly constituted body, such as the provisional Committee for the Development of Regional Survey, the South-Eastern Union of Scientific Societies, the British Association, or one of the learned Societies. As a matter of fact, this most interesting and important work, which, to attract more than passing attention, I have christened "The New Domesday," has already been commenced by a few enthusiasts scattered about the country, but it needs more concentrated and collective effort if the scheme is to be carried out in its entirety.



My own life has taught me to recognise the great importance of such a survey-record as I have in mind, and I would include within its fold everything of interest, for even isolated facts, when properly strung together, have a knack of dovetailing into a well-planned scheme, so that a worker in any department for which he, or she, is fitted, is encouraged to proceed with a very desirable end in view. Every class of student can assist in this organised study of a region which may be approached from every conceivable aspect, and "the co-relation of all aspects, so as to give eventually a complete picture of the region surveyed, both in its past history and present features, and from these to indicate its probable future development. . . . Further, the relation of the various branches of study to the same region, brings together in a very living way the specialists in each of them who are still too apt to work in watertight compartments." Thus writes my friend, Mr C. C. Fagg, in an excellent paper read before the Library Association and the Library Assistants' Association at Caxton Hall in 1916.

Although as old as the hills in one sense, this New Domesday, as I call it, or regional survey, owes its more modern inspiration to Professor Patrick Geddes, who undertook a pioneer survey of the city of Edinburgh, as displayed in his "Outlook Tower" there. Another pioneer who is deserving of mention was the late Professor Herbertson, who carried the idea to Oxford, where it became a leading feature of the Geographical school, and Dr H. R. Mill has also helped the movement forward in various influential ways, not the least of which was a series of papers written in 1895-6, in which he specifically advocated the regional description of the British Isles.

In addition to the practical support which can be accorded to this scheme by various local research societies, several schools, in which there is an enthusiast as principal, or upon the staff, have commenced operations, and I see no reason why this should not be indefinitely extended. Boy scouts, Girl Guides, Guilds, Rambling Clubs, and the rest might very well assist, under the organisation of a local Scientific Society, or Regional Survey Committee, and from my own experience I have no hesitation in testifying as to the interest created, the personal and collective knowledge that is acquired, and the keenness displayed by young people in this all-important work.

Various schools, under the most excellent School Journey Association (now in its twenty-first year), have for several years

past taken their pupils, and staff, into country districts for a week's survey holiday, or educational excursion, and several guide-books that have been prepared, and which have come into my hands, admirably portray how thoroughly such undertakings are planned and carried out.

Let me briefly set out one such guide-book, issued, curiously enough, by Kentish Town Road L.C.C. school, which has as its headmaster, Mr G. G. Lewis, one of the pioneers in this really splendid movement, which should never lack funds, and should be State-aided.

The guide-book before me (Folkestone, Easter 1910) is of handy size ( $7\frac{3}{4}$  ins. by  $5\frac{1}{2}$  ins.) and is well bound. On the inside page of the cover "Our Party" (Staff and Pupils) is listed, and the opposite title-page affords the information that in 1906 Chepstow was explored; 1907, Abergavenny; 1908, Shanklin; and 1909, Stroud. "Our Aims" are next enumerated, and these may, with advantage, be given here:—

- I. To bring teachers and scholars into closer touch with each other.
- II. To foster habits of good fellowship, self-reliance, and unselfishness.
- III. To develop powers of observation of natural objects.
- IV. To investigate the causes which produce scenery.
- V. To secure rock, plant, and animal specimens unobtainable on school journeys near London.
- VI. To extend the knowledge of mankind, past and present.
- VII. To gain health and vigour from a week's life at the seaside.
- VIII. To learn how to spend a holiday intelligently and happily.

Next comes useful hints on "What to take," then follows a detailed programme for each day's stay. Particulars are given of the railway route to be taken, nature of the soil, important towns, distances from London, notes on railway construction, and a map. A few notes follow devoted to Folkestone and a plan of the town, then Harbours, Lightships, and Lighthouses, with capital illustrations of types of "Ships that pass," illustrated descriptions of Dover, Deal, Walmer, Sandgate, Hythe, Dunchurch, and the Warren. There is a page mapped out for Tides, as also the Straits of Dover, Channel Tunnel, Boulogne, Canterbury (with a Cathedral plan and notes), History of Architecture, plan of Folkestone district, Seashore Animals and Plants, Waves and Pebbles, Capes and Bays, Birds of the Cliff and Hedge (all these sections are excellently illustrated), Notes on Sketching and Simple Seascapes, Contour Notes and Map, Rocks of Kent, Coal and Iron, Gault Fossils (most praiseworthy illustrations on



two pages), Geological Map, L'Entente Cordiale, Defence, Soldiers and Sailors, Star Notes and Map, Music and Words for Grace and Evening Hymn, Canterbury Tales, Register of Marks obtained, blank page for Report, Index, and, finally, a series of Short Lessons delivered on such diverse subjects as Martello Towers and Sea Birds, the Heavens and the Channel Tunnel, Canterbury Tales and Seaweeds, Farm Life and Hermit Crabs.

The benediction is appropriately devoted to "Our Friends" who assisted in making this memorable expedition possible, and what Kentish Town Road and other schools have accomplished at Folkestone, and elsewhere, can be undertaken by many other schools *in their own districts* as an aid to the New Domesday of which I am a faithful disciple and enthusiastic advocate.

The zeal for conservation of objects and records is increasing all over the world in every centre of civilisation, as Mr Bruce Cummings points out in an illuminating essay, entitled "The Art of Perpetuation," in "Science Progress" (April 1917). All this is on the right lines, and I have given prominence to the exploits of the schoolboys of Kentish Town Road because I am impressed with the supreme importance of enlisting the sympathy, and support, of young people in this survey of their own country. Such original work is an education of itself, and no objection should be raised to this outdoor survey by the authorities, though, as we know from bitter experience, how slow they are to move, and how progress is often impeded.

Science, which, after all, is well-organised common sense, as Huxley expressed it, will be recognised more than ever in the days to come, and it is as well to lay our plans ahead in the hope that, when the time arrives, those of us who are destined to play an important part in this regional survey work may not be found wanting.

Cummings says that "Conservation is a natural tendency of the mind. One might lay down a certain law of the conservation of consciousness to indicate our extreme repugnance to the idea of anything passing clean away into the void. What insinuating comfort in those words that every hair of our heads is numbered!" And, later on, he says: "Every man, willy-nilly, collects and preserves, for his consciousness is, of itself, an automatic collecting instrument, and his memory a preservative. After a life of it, a man's mind is a museum, a palimpsest, a hold-all." But it is up to all of us who have thus *conserved*, to *perpetuate* our store of knowledge, for it is within my own (and

many others') experience that local worthies (sometimes self-educated and unable to write down) pass away, and their life's information, gathered at first hand, dies with them. This should not (and must not) be, and the sooner we get to work on this New Domesday the better.

It is not within my province to elaborate in great detail how such a regional survey should best be conducted, but it may here be stated that conciseness is an ideal that should be aimed at, and a series of faintly-printed one-inch maps, supplemented with notes and illustrations, should form a basis of the records. The present need of the movement, as Mr Fagg points out, is what may be termed a conspectus setting forth in outline, and in detail, the field to be surveyed. "If," he says, "we had a good general conspectus, it could be adapted to the needs of any given region by the local Survey Society."

Perhaps a few brief notes may be given by way of suggestion. The first decision to be arrived at is the region to be surveyed. Maps on the one-inch scale will, as a rule, be large enough for the records, but for field work the six-inch maps are the most generally useful. A parish basis is, perhaps, preferable to any other, but these suggestive ideas are merely set out for what they may be worth, and to help forward the New Domesday which I have in mind, and upon which, as a matter of fact, I am now at work in my own district.

A point not to be lost sight of is to keep in view the work of kindred Societies and helpers, so that there is a co-related interest, and overlapping may thus be avoided.

A good geological map of the district to be surveyed is most essential, and a contour map is also of importance. Both these maps should also be reproduced in transparent form so as to place over other maps, as, by these comparative means, much interesting information is pertinently displayed.

Meteorological maps are essential, as also maps devoted to Sources and Flow of Streams, Communications, Footpaths, Railways, and Accessibility to Railway Stations, Population, Civil Organisation (Past and Present), Ecclesiastical Parishes, Archæology, Buildings, Ponds, Pits, Animal and Plant Life, and the rest.

The regional study of vegetation has already made considerable progress during the twentieth century. Field botany is coming unto its own, and the results already obtained have been admirably summarised in "Types of British Vegetation," edited



by Mr A. G. Tansley. Dr C. E. Moss has also issued through the Cambridge University Press a good example of a modern vegetation survey in "The Vegetation of the Peak District," and, whilst animal life does not lend itself so readily to ecological treatment, there are tremendous possibilities in regard to birds, as I have shown in a humble way in my "Bird Studies" (C.U. Press, 1914).

Many more sub-headings might be suggested; in fact, the greater the number, the greater the value and interest of the work, but a general summary of a scheme suggested by Mr Fagg may here be given. It so happens, says the author, "that the sub-division in the first summary happens to be ninefold, and is thus well adapted to a decimal notation, the cipher being available for methodology." Here is Mr Fagg's infectious outline:—

- |                                |                                |
|--------------------------------|--------------------------------|
| (9) Incipient Evolution.       |                                |
| (8) Social Evolution.          | (7) Historic Development.      |
| (Interpretative.)              | (Descriptive.)                 |
| (6) Primitive Man.             |                                |
| (5) Animal Life.               |                                |
| (4) Vegetation.                |                                |
| (Edaphic Ecological Factors.)  | (Climatic Ecological Factors.) |
| (3) Orography and Hydrography. |                                |
| (1) Geology.                   | (2) Meteorology.               |

Mr Fagg's brief explanation of this scheme must be added so as to make same more lucid. He writes:—

"In making a regional study, the Geology of the region is of the first importance. It is the bedrock, both literally and metaphorically speaking, upon which all else is built.

"Partly dependent upon the Geology, partly competing with it as an influence upon life (and largely reacting upon it), is the Meteorology of the region, the rain and sunshine, wind and temperature. The interplay of meteorological phenomena and geological formations determines the Hydrography—that is, the surface and underground drainage—of the region, and gives rise also to the denudation of the rocks.

"Directly dependent upon the Geology and Meteorology is the Vegetation, which in turn reacts upon them. Dependent again upon the Vegetation, Climate, and Geology, and reacting in a multitude of ways upon the first and last, is the Animal Life. Finally, we name Mankind as dependent upon the whole environment, and to an ever-increasing extent master of it. It is in Mankind and his contemporaries that we find a link with

recent Palæontology, and we have to follow his career from his advent in our region, through the realms of Archæology and History, to that of Modern Sociology.

“ Primitive Man is worthy of a place to himself, and from the dawn of history the human survey is better divided into two parallel branches. The one which I have provisionally called ‘ Historical Development ’ will take each of the many subdivisions of Social Study, *e.g.* Population, Language, Land Tenure, Housing, Family Life, Local Administration, and so forth, and describe its development from the earliest times to the present with an unlimited degree of detail, while the other, which I have called ‘ Social Evolution,’ will aim at reconstructing as a whole, and estimating the significance of, each successive phase of human history. Such a study is at once the most important, and the most difficult, part of a regional survey, but, based as it will be upon an appreciation of all the underlying factors, it cannot fail to throw much light upon current social phenomena, and enable us to appreciate, if not to direct, the incipient tendencies of social evolution in our region.”

The interest created among the members of the Letchworth and District Naturalists’ Society, since the idea of this new local Domesday was first mooted, has been most marked, and several field excursions are now devoted to this important work. As an instance of what a great deal of useful information can be collected during one Saturday afternoon excursion, I may cite a visit paid during this Summer to the neighbouring village of Pirton.

Pirton may be of no interest to the general reader, but it will serve to show what information may be acquired concerning our local villages under the scheme in view. The party was in charge of an amateur regional surveyor (Sir Ronald Ross says in “ Science Progress ” (April 1917), that he is beginning to think that almost all big scientific work is done by amateurs, or, at least, by men who were amateurs when they did the work ; and that professional scientists write the text-books and obtain the credit !), who deputed the various members to undertake certain sectional work.

Our local outline plan of a regional survey is as follows :—

#### SUGGESTED OUTLINE SCHEME OF REGIONAL SURVEY

##### I. GEOLOGY AND METEOROLOGY.

|                    |                               |                   |
|--------------------|-------------------------------|-------------------|
| Soil and subsoil.  | Water supply.                 | Rainfall.         |
| Nearest heights.   | Nature and analysis of water. | Prevailing winds. |
| Ponds and streams. | Fossils.                      | Drainage.         |



## II. BOTANY AND AGRICULTURE.

Hedge trees and shrubs. Prevailing species.

Number and kind of trees in each case :—*A.* On Village Green.

*B.* In Churchyard. *C.* In fields abutting on Village. *D.* In Village lanes. *E.* Very old or large trees.

Wild flowers in Village hedgerows, fields, copses, etc., with special notes on plant associations.

Character of crops and produce.

State of Village gardens, orchards, and contents.

## III. ORNITHOLOGY.

Established haunts of Summer and Winter migrants, and resident species.

Rookeries and number of nests.

House Martins and nests.

General notes on characteristic local birds.

## IV. ARCHÆOLOGY AND ANTIQUITIES.

Old buildings, farms, tithe-barns, houses, tumuli, earthworks, terraces, traces of open fields, prehistoric and early historic remains (including flint, bronze, and iron implements).

## V. ROADS AND LANES.

British, or Roman, roads, or trackways.

Green or metalled roads, and present state of same.

*Names* of all roads and lanes.

## VI. VILLAGE LEGENDS, SONGS, OR FOLK-LORE.

Bygone or present Village characters.

## VII. HOUSES.

Number of houses in Village, with shops and trades.

Houses with dates, fire-signs, and unusual characteristics.

Houses with thatched roofs.

Number of Public-houses and signs.

Names of these, and whether off or on License.

## VIII. POST OFFICE.

Call and ascertain :—

How many houses (to check own census).

Commonest names of people, peculiar names, and oldest families.

Which Public-houses are tied or free.

Old inhabitants.

Natives who have made their mark.

Institutions and places of worship (in use or derelict).

Landowners, Allotments, Glebe, or Common Lands.

Get as full particulars as possible of all these, and, if not obtainable, obtain reference to someone else if possible.

## IX. CHURCH.

Is it locked, and, if so, where is key kept.

Acquire fullest possible knowledge from clergyman or verger.

Learn of errors (if any) in previous information, or new discoveries and data.

## X. GRAVESTONES.

Peculiar gravestones, epitaphs, prevailing or peculiar names,

Eminent persons, very old interments, records of old age, etc.

## XI. SCHOOL.

Whether endowed or private.

Number of scholars and staff, and character of school.

## XII. SPECIAL LOCAL NOTES.

Village industries.

Carriers.

Nearest market town.

Descendants of famous men or women.

Any other information worth recording.

This, to say the least, is fairly comprehensive, and, although blanks may be drawn in several sections, to be filled in during succeeding visits, *one hour at Pirton* resulted in the following information being collected:—the young people in the expedition were set to work to count the trees *en route*, and at one point 62 Elms, 2 Willows, and 2 Oaks were “surveyed.” Along Leg of Mutton Lane (why so called?) 29 Elms, 7 Oaks, 9 Beeches, 5 Poplars and Willows came into the census. The acquisition of this information meant keen observation, and the young folks were very ready to assist.

Sixty-seven slate-roofed buildings were recorded, including the Constabulary, a Glove Factory, Vicarage, School, Post Office, and four Shops. There were further houses otherwise roofed, and 20 thatched buildings, including 18 Cottages and 2 Barns.

There are 2 Grocers in the Village, a Tobacco-dealer, a Boot-maker, a Nurse and Midwife, and 4 Almshouses. Altogether, there are about 200 Houses and 9 Farms in the Village (a Gazetteer in 1861 gave 188).

The commonest names are Baines, Burton, and Walker. There is the name Halfpenny, and the strangely different, yet similar, names of Throssell, Thrussell, and Trussell, whose families are distinct.

Besides the Church, there are Wesleyan and Baptist Chapels, an old Wesleyan Chapel now used as a Sunday School, and there are a Church of England Sunday School and an Elementary Council School.



There are 9 Public-houses, and their signs are :—Blacksmiths' Arms, Cat and Fiddle, The Fox, Live and Let Live, Old Hall, Red Lion, Royal Oak, Shoulder of Mutton, and White Horse. Only one of these (the Royal Oak) is a free house.

Landowners are Davis, Delme-Radcliffe, Gurney, Handscombe, and Walker.

There are allotments at Bury Field, Hill Close, Willow Close, and the Common.

There is a Village Green, and about 40 acres of Glebe Land.

The longest-lived family is the Handscombes, of whom several have attained an age of ninety and over. At the time of our survey there were three over eighty still alive, and one died in 1916 leaving great-great-great-grandchildren.

There is no local knowledge of any natives who have become famous.

The Charities include 4 Almshouses, two of which were erected from the Hammond Charity, consisting of the rent from 6 acres of land at Punch's Cross, a portion of which is also applied to put boys out as apprentices.

Three members of the party were deputed to survey the grave-stones in the churchyard, but those at Pirton seemed singularly uninteresting. The earliest decipherable tomb was dated 1760. The commonest names were Handscombe, Lake, Trussell and its variants, Wood, and Woolston. There were only two epitaphs worth recording, and these need not be repeated here. The record of age was borne by a stone of the Handscombe family, which elicited the information that the two members buried there attained the ages of ninety and ninety-two years.

Making the acquaintance of an intelligent native who was proud of his village and its associations, the information was acquired that the stone used for the recent addition to the church (the familiar "Church" or Totternhoe Stone) was dug from a pit on Glebe Land between Pirton and Holwell. This pit, it appears, is remarkably prolific in fossils, and there is a wonderfully fine fossil fish preserved in a case in the church. A splendid fragment of ammonite is built into the wall over the door, and there is another huge piece of the same extinct monster lying in a heap near by.

This communicative inhabitant also informed us that the only school that the village formerly had was a Straw Plaiting School, where this work was then the foremost object of concern, and education was of secondary importance. Further, he expressed a

wish that someone, or some Society, would interest themselves in the antiquities of the village!

The glove industry, recently introduced into the village from Leicester, began in a very small way with only two workers. It has been so successful that a commodious workroom has been erected, and about forty girls and women are now employed. The wages earned, and the character and conditions of the employment, appear to be greatly appreciated by the villagers.

Progress, however, in this Hertfordshire village of Pirton, which lies singularly away from any main road, and is very isolated at the foot of the chalky Chilterns, is by no means rapid. Most of the houses are very old, and, although some may be regarded as picturesque in their setting, one might prophesy that modern cottages and arrangements would tend to raise the average age of decease, which, judging from the gravestone records, is not too high.

Here, as elsewhere, there was during our visit great activity in garden and allotment, and evidence of cultivation appeared to be thorough and remunerative.

I have not recorded any information in the archæological or antiquarian sections, as it is not necessary to cover but only to check (or supplement) work already done in these important departments. A bibliography of regional surveying is one of the urgent needs of the movement, for, although the literature upon the subject is as yet small, the amount of material, published and otherwise, stored up by individuals and Societies, is enormous. Bibliographies of local data would prove an invaluable help to the regional surveyor, and, if this department is placed in the hands of a competent person, the result obtained cannot be over-estimated. The collecting, annotating, analysing, and collating of local surveys is also of vast importance, and a working committee might be appointed which should be responsible for this happy consummation of the New Domesday now in the making.

If, added to this regional survey work, a local Society or Institution has a Regional Museum, or the opportunity of founding one, an immense asset will be added for handing on to posterity. The Letchworth Society (of which I am the Honorary Secretary and Curator) is in the happy position of possessing such a regional museum. A few general particulars may here be given of the aims, objects, and accomplishments of this Society:—

It is managed by a council of nine members, and its work is



carried out by sectional recorders and curators in various departments of Natural Science. The property of the Society is vested in three trustees, who, under a trust deed, possess certain powers which they may, or may not, put into operation, but for which ample provision has been made. Weekly rambles are held from April to September, with monthly meetings in Summer, and fortnightly in Winter. Annual reports are presented on the subjects of Meteorology, Botany, Lepidoptera, Ornithology, and other branches, whilst lantern lectures and papers on a variety of subjects are also given.

During its existence the Society has been active in many directions, and one important feature of its work is collecting and classifying local documents relating to the history and folk-lore of the district, together with press cuttings, photos, drawings, maps, biographies, books by local authors, and manuscripts.

As soon as the Society had found a home, and had more facilities to offer to its members, its membership increased by leaps and bounds, for, as in June 1914, it only had a membership of fifty, to-day it is the largest Society in Letchworth, with a total rapidly approaching three hundred. This being so, the income of the Society has increased sufficiently to warrant expenditure on various incidentals necessary for the furnishing and upkeep of a small museum, together with the purchase of specimens, and, with the generous assistance of many well-wishers, the Society now finds that the first part of the building is already full up. The present building is only the commencement of a much larger undertaking.

Complete plans have already been prepared, and these provide for a three-storied Georgian building consisting of various rooms and offices, with a large single-storey building at the east end to form the larger museum. The present building, as a matter of fact, will eventually merge into an entrance hall, and may hereafter contain examples of local arts and crafts. It is so constructed that, when an enlargement is effected, the same may be carried out without any material alterations being necessary, and the cases and cabinets have been so designed that they can be applied to the larger building. The problem of enlargement is now occupying the attention of the Society, and it is hoped that means will be forthcoming to enable this to be accomplished in the near future, as, in the meantime, offers of exhibits are being received which cannot at present be shown, owing to lack

of accommodation. *Any contributions towards the enlargement fund will be very gratefully accepted by the author of this volume.*

As an instance of the present status of the Society, it may here be mentioned that it is affiliated to the British Association, Hertfordshire Natural History Society, School Nature Study Union, Selborne Society, the South-Eastern Union of Scientific Societies, and the Watson Botanical Exchange Club.

Letchworth museum is, to an extent, mapped out on the space-for-time principle, so ably illustrated at the educational museum at Haslemere founded by the late Sir Jonathan Hutchinson, but whilst it has not been possible in the room at disposal to carry this out in its entirety at Letchworth, an attempt has been made in a series of six mahogany cases. A coloured chart shows the comparative duration of the geological periods illustrated by these six wall cases.

The cases illustrate the *development of life on the earth* from the earliest geological records to the present day. For convenience, the space behind each glass door is here referred to as one case, and numbered I.-VI. from the left. The last two of these cases are devoted to remains—almost all local—of the *Human Race*, first in the “Stone Ages,” then in the “Bronze” and “Iron” Ages, thus bringing the record of man up to historical times.

It should be noted that the fossil exhibits are arranged in ascending scale of life, from the Sponges, Corals, and Sea-Urchins of the lowest shelf, to the Vertebrates—or Backboned Animals—of the top shelf (in which, however, Vegetable forms are also included). It is thus possible to study more easily the development of a particular class or family, *e.g.* the Brachiopods, or the Ammonites, through successive geological eras.

Cases I.-III. correspond broadly with the three great geological eras: *Palæozoic*, *Mesozoic*, and *Tertiary*, giving special prominence to the *Chalk Age* (a subdivision of the Cretaceous period of the Mesozoic era) as being the local “formation”—that is, the ground beneath us dates from this age, as may be seen from the “section” map displayed. A series of reconstructed maps inside the cases shows the successive rise and fall of the land surface of what is now the British Isles, which has caused these remains to be accumulated beneath the sea, and preserved by the sediment falling upon them.

Case IV. is devoted to local remains from the “*Boulder-clay*” and “drift gravels” which have been transported by ice, and



deposited over the chalk in the neighbourhood of Letchworth during the *glacial epoch*, and to the present day survivors of some of the types found earlier in fossil form.

For the relative time to be assigned to these different periods, the chart already referred to should be consulted.

The cases contain movable sloping shelves, and the specimens are mounted on wooden blocks. Wherever possible, diagrams, maps, and other illustrations, including photographs, are exhibited.

Having outlined the contents of the first four cases, we reach, in the fifth compartment, specimens illustrating the first evidence we have of the human race in Britain, examples being shown of the age of stone tools. Letchworth and district is particularly rich in prehistoric remains, and, since the museum was instituted, many valuable local finds have been forthcoming in this direction, including an ancient British gold coin of about 150 B.C., which is a barbarous copy of the Greek art exhibited in the beautiful gold staters of Philip II., King of Macedon, father of Alexander the Great (382-336 B.C.). The Letchworth specimen was found in a celery trench in September 1915. The Society's collection of stone implements at present contains Flint Arrow Heads, Scrapers, Hammer Stones, Pounders, Knives, and other tools representative of the Palæolithic and Neolithic periods, together with a few specimens of the Bronze and Early Iron Ages. It has been fortunate in having had presented to it a number of exhibits from the well-known collections of the late Mr William Ransom, of Hitchin, and, in course of time, should possess a representative collection of the oldest objects which were indisputably made by man.

A varied collection of Roman remains of local occurrence are exhibited, such as Bone Pins and Needles, Stylos, Lamps, Bottles, Samian Ware, Buckles, Armlets, Bracelets, Tear Bottles, Fragments of Pottery, Uncion Glasses, Coins, and other Roman objects. At Great Wymondley the remains of a Roman Villa were discovered, and excavated, in 1885, from which several exhibits are shown. A plan of the villa is exhibited in the case containing these.

Coming to more historic times, there is being gathered together a collection of objects illustrative of the development of man's handicraft through the centuries, such as Mediæval Spoons, Phials, Arrow Heads, Horseshoes, Buckles, Elizabethan Tobacco Pipes, Sixteenth Century Watering Pots and Glass Bottles, Wig

Curlers of the early Georgian period, Old Fire Signs and Leather Bucket, Brass Rubbings, Tokens, obsolete domestic and agricultural utensils, and several other exhibits which need not be detailed. The idea is that in the larger building, to be erected hereafter, *each period of man's history upon earth shall be shown in chronological sequence, so that there shall be illustrated a series of regional exhibits of the life of the human race.*

In addition to the foregoing, Letchworth museum contains well-arranged collections of Local Animals (Birds, Fishes, Insects, Mammals, Mollusca) and Plants, as well as Rocks and Minerals, British, Roman, and English Coins, Birds' Eggs and Skulls, a remarkable series of whole-plate photographs of British Trees set out in pairs, Summer and Winter, together with the boles of some thirty species, and a Natural Science and Town-planning Library.

All this work has been accomplished in less than three years, and as, in after time, it will continue to remind my successors of the work which I have myself been privileged to undertake, and which I hope to be spared to carry on for many years to come, it may well serve as a fitting conclusion to this account of my "Life."

It is always pleasant to reflect that one has occupied an honourable position, and to build up a permanent record of one's energies, for, after all, the best "degree" one can obtain is exemplified in work actually accomplished. One cannot, it seems to me, graduate to better advantage, or under happier conditions, than in the university of life, for, under these circumstances, one is best able to serve the community in which he lives, and to make his influence felt in the sphere in which he moves. Such being the case, I am content to leave whatever value at which my own efforts may be appraised to the judgment of my fellows, conscious of the fact that, in thus rendering service, the pleasure derived, and, incidentally, the broadened outlook upon life that is obtained, is ample compensation for the labour entailed.

My own life, as I have endeavoured to set forth in this volume, has been one continuous round of knowledge-seeking and unalloyed delight, and, as such, I have faithfully related my experiences in the pleasant anticipation that the reader will have been both interested and impressed.



## APPENDIX

*The following is a chronological List of the Author's more important books :—*

- A Year with Nature (*Drane*).
- Country Rambles (*Drane*).
- Every Boy's Book of British Natural History (*R.T.S.*).
- Fifty-two Nature Rambles (*R.T.S.*).
- The Story of Insect Life (*Kelly*).
- The Story of the Sea and Seashore (*Kelly*).
- The Boy's Own Nature Book (*R.T.S.*).
- The Insect Book (*Lane*).
- Animals at Home (*Dent*).
- The Young Botanist (*Methuen*).
- The Open-Air Nature Book (*Dent*).
- Nature-Stalking for Boys (*Dent*).
- Trees and Shrubs of the British Isles (*Dent*).
- The Animals and Their Story (*Kelly*).
- The Young Naturalist (*Methuen*).
- British Nesting Birds (*Dent*).
- The Animal Kingdom (*Dent*).
- The Book of the Zoo (*Dent*).
- The Young Ornithologist (*Methuen*).
- Bird Life of the Seasons (*Black*).
- A Year in the Country (*Headley*).
- Wild Flowers of the Hedgerow (*Laurie*).
- Wild Flowers of the Wood (*Laurie*).
- The Circling Year (*Nelson*).
- The Natural History of the Garden (*Black*).
- The Book of Nature (*Frowde & Hodder*).
- The Wonders of Bird Life (*Milner*).
- Bird Studies (*Cam. Univ. Press*).
- The Boy's Book of Pets (*Grant Richards*).
- Nature's Wonderland (*Pilgrim Press*).
- The Young Observer's Handbook (*M'Bride*).
- My Life as a Naturalist (*Palmer & Hayward*).

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